MINISTRY OF HEALTH
Republic of Liberia

National Guidelines for Comprehensive Abortion Care

safe abortion for legal indications & post-abortion care

First Edition | December 2019

Foreword

The Government of Liberia prioritizes its reproductive, maternal, newborn, child and adolescent health (RMNCAH) agenda within the health sector through the development and implementation of a series of strategies. The National Sexual & Reproductive Health Policy developed in 2010 recognizes that in order to improve on the poor health indicators as it relates to maternal and newborn services, Liberia must improve on the family planning services and increase uptake of contraceptives. Among national efforts to improve access to and quality of RMNCAH services, the prevention of unsafe abortion, and morbidity and mortality from unsafe abortions is a priority investment area under the Liberia RMNCAH Investment Case of 2016-2020 (Liberia MOH, 2016a). The Government of Liberia must focus on reducing preventable deaths from unsafe abortions, by putting in place well-weighed thoughtful and evidence-based interventions that are impactful and inclusive of both **safe abortion** (under the provision of the current legal framework) and **post-abortion care (PAC).** The establishment of programmatic and clinical guidelines which cover both components ensures the country has a thorough package of **comprehensive abortion care (CAC) services. For over a decade,** Liberia has taken a clear stance that PAC services should be provided to Liberian women and girls; for example, the 2010 SRH policy "*encourage[s] training of service providers and equip facilities to deliver quality comprehensive post-abortion care services, including family planning*". However, there was no specific guidance on the nature and scope of the training for service providers in CAC, the necessary equipment for CAC, or what constitutes CAC services.

The Family Health Division of the Ministry of Health recognizes that Liberia has one of the highest maternal mortality rates in the world (1,072 deaths per 100,000 live births), the majority of which are attributable to preventable causes which could be addressed by swift and effective interventions. Amidst growing global evidence and advancements in health technologies for providing comprehensive abortion care, Liberia has recognized the need to develop clear national guidance for the organization of safe abortion and PAC services, as well as to inform evidence-based best practices in clinical service delivery. Under the leadership Minister Wilhelmina Jallah, this is the country's first-ever Comprehensive Abortion Care guidelines. These guidelines will serve as a critical step in improving the provision of quality reproductive health services for women and girls.

On behalf of the Ministry of Health, I would like to take this opportunity to thank all our partners for the technical and/or financial contribution to developing this very important tool, including Clinton Health Access Initiative (CHAI), the Global Financing Facility/World Bank and UNFPA. Let me end by emphasizing that the vision of the Ministry of Health is that **NO WOMAN AND GIRL SUFFERS OR DIES FROM ABORTION-RELATED COMPLICATIONS.**

Wilhelmina Jallah, MD., MPH., FLCP., FWACP
Minister of Health

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Acknowledgements

The Ministry of Health acknowledges with sincere gratitude, the overwhelming support received from service providers, partners, donors and regulatory bodies in completing the drafting and validation process for the first-ever **national guidelines for comprehensive abortion care (CAC).**

We appreciate the very useful inputs from the onset to the final days of the validation process. We are indeed indebted to partners particularly to the Global Financing Facility (GFF), World Bank and Clinton Health Access Initiative (CHAI) for their financial support, to Clinton Health Access Initiative (CHAI) for heading the drafting committee. We recognize the efforts of all partners during the entire process and it is important to mention few of the dedicated clinicians for their clinical expertise provided to enrich these guidelines: Dr. Angela Benson, Dr. Anthony Quaye, Dr. Elsie Ballah, Mrs. Mary W. Tiah, Dr. Moses Massaquoi, Dr. Nicholas V.S. King, Dr. Sovich Karmorh, Dr. Williamatta S. Gibson and Dr. Yatta Wapoe

My sincere thanks and appreciation to the Minister of Health for her unflinching support for the building of a resilient health system.

Finally, I want to express my sincere gratitude on behalf of the Ministry of Health to the able Director Mrs. Bentoe Zoogley Tehoungue, and deputy director (Minnie Sirtor Bowier) and all staff of the Family Health Division (FHD) who made this come true.

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Purpose of the Document

These guidelines have been developed to address the service delivery gaps in Liberia by providing clear guidance on the safe abortion under legal provisions and on post-abortion care (together known as comprehensive abortion care). This document was developed based on the most up-to-date global evidence on safe abortion care best practices, and should be used along with other current national guidelines in Liberia. This document is intended for service managers and clinicians, and is organized into two main parts: programmatic guidelines (Part A) and clinical guidelines (Part B).

Table of Contents

Tables & Figures

Acronyms

CAC	Comprehensive abortion care
CHA	Community Health Assistants
CHSD	Community Health Services Division
CHW	Community health workers
CMS	Central Medical Store
D&C	Dilation & Curettage
D&E	Dilatation & Evacuation
EmONC	Emergency obstetric and neonatal care
EPHS	Essential Package of Health Services
FHD	Family Health Division
gCHV	General Community Health Volunteers
HIV/AIDS	Human Immunodeficiency Virus/Acquired ImmunoDeficiency Syndrome
HLD	High-level disinfection
HMER	Health Information Management, Monitoring, Evaluation, and Research
HMIS	Health Management Information System
IPC	Infection prevention and control
LMHRA	Liberia Medicines and Health Products Regulatory Authority
LMIS	Logistics Management Information System
MOH	Ministry of Health
MVA	Manual vacuum aspiration
NS/RL	Normal Saline/Ringer's Lactate
PAC	Post-abortion care
POC	Products of conception
RMNCAH	Reproductive, maternal, neonatal, child and adolescent health
SCMU	Supply Chain Management Unit
SRMNH	Sexual, reproductive, maternal and neonatal health
SSRR	Stock Status Report and Requisition form
STI	Sexually-transmitted infections
STG/EML	Standard Therapeutic Guidelines & Essential Medicines List
TTM	Trained Traditional Midwives

Background

The World Health Organization (WHO) defines unsafe abortion as a procedure for terminating an unintended pregnancy, carried out either by persons lacking the necessary knowledge, skills, and qualifications, or in an environment that does not conform to minimal medical standards, or both (WHO, 2012). Worldwide, 25 million unsafe abortions take place each year (Guttmacher Institute, 2018), which contributes to 68,000 deaths (approximately 13% of all maternal deaths). For every death, 10-15 other women require medical care for complications of unsafe abortion. The advent of safe and effective medical practices to perform safe abortion, along with providing universal access to such services, has the potential to eliminate unsafe abortions and related deaths entirely (WHO, 2012). Irrespective of the nature of the abortion, whether spontaneous (i.e. miscarriage) or induced (under legal provisions or illegal), post-abortion care (PAC) is endorsed globally as an important intervention to address complications associated with miscarriages, incomplete abortions, and unsafe abortions. During the 1994 International Conference on Population and Development (ICPD) in Cairo, 180 countries in attendance (including Liberia) agreed that, regardless of a country's legal environment surrounding abortion, "*In all cases, women should have access to quality services for the management of complications arising from abortion. Post-abortion counseling, education and family-planning services should be offered promptly, which will also help to avoid repeat abortions*" (UNFPA, 2004). In recognition of this, PAC programs have since been initiated in at least 40 countries worldwide as of 2011 (USAID PAC Working Group, 2007b). While interventions to improve family planning practices and increase contraceptive uptake is essential to reduce unintended pregnancies and subsequent incidences of induced abortion, the provision of high-quality post-abortion care must also be implemented as part of a comprehensive effort to reduce maternal morbidity, mortality, and repeat abortions.

Liberia has one of the highest maternal mortality ratios in the world at 1,072 deaths per 100,000 live births (LISGIS et al., 2014), with a majority of deaths attributed to preventable and treatable complications. The major causes of maternal deaths are hemorrhage (25%), hypertension (16%), unsafe abortion (10%), and sepsis (10%) (Liberia MOH, 2016a). The Government of Liberia is committed to reducing the high rates of maternal and neonatal deaths in the country, and is a signatory to global calls to action and partnerships such as the United Nations' (UN) Every Woman Every Child initiative, the UN Sustainable Development Goals 2015–2030, Family Planning 2020 (FP2020), Maputo Protocol 2013, and the UN Secretary General's Global Strategy for RMNCH Accountability and Results.

Within the national sphere, the Government of Liberia prioritizes its reproductive, maternal, newborn, child and adolescent health (RMNCAH) agenda within the health sector through the development and implementation of a series of strategies. Among national efforts to improve access to and quality of RMNCAH services, the prevention of unsafe abortion, and morbidity and mortality from unsafe abortions is a priority investment area under the Liberia RMNCAH Investment Case of 2016-2020 (Liberia MOH, 2016a).

Current legal environment

Under the Liberian Penal Code (1978), Section 16.3 (Appendix 1), abortion is justified on the following grounds: to save the life of the woman; to preserve the physical health of the woman; to preserve the mental health of the woman; rape or incest or other felonious intercourse; fetal impairment.

Any person performing an illegal abortion commits a felony, and a woman who induces her own abortion is considered to have committed a felony.

Although unsafe abortion and abortion-related deaths is a substantial contributor to maternal mortality in the country, Liberia's routine data on incidences of induced abortion, unsafe abortion and abortion-related

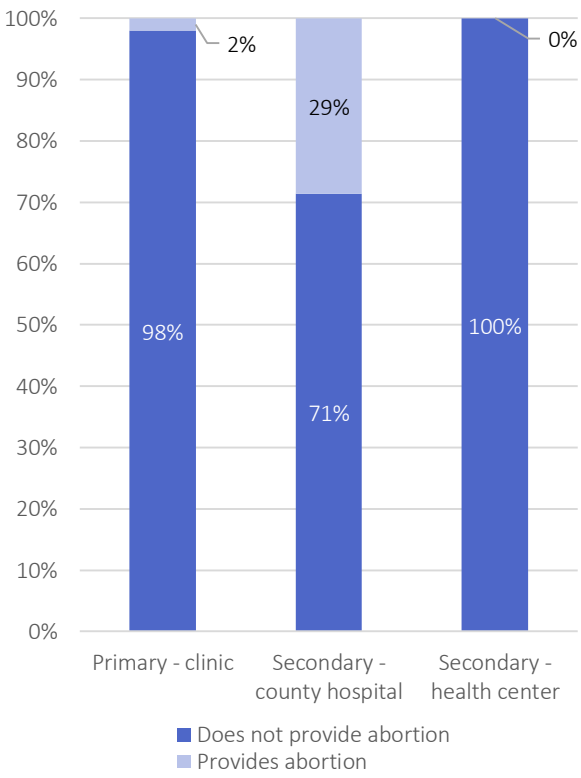
complications are largely incomplete. This is partly due to the country's restrictive laws surrounding abortion (WHO & HRP, 2019), and partly due to the highly-sensitive nature of the topic that hinders direct response even in population-based studies. Existing estimates of the incidence of abortion for women in Liberia range from 6% as captured by the Demographic and Health Survey (DHS) in 2007 to 32% as reported by a population-based study in 2015 (LISGIS et al., 2008; Moseson et al., 2015). With a 30% adolescent pregnancy rate (Liberia MOH, 2016a), unsafe abortions also disproportionately affect adolescent girls as they are more likely to undergo abortions in unsafe environments, and are less likely to seek timely post-abortion care.

To reduce preventable deaths from unsafe abortions, interventions must exist to improve both **safe abortion (when permitted under the law) and PAC — together, this makes up a package of comprehensive abortion care (CAC) services.** Despite growing global evidence and advancements in health technologies for providing comprehensive abortion care, Liberia has yet to adapt this into clear national guidance for the organization of abortion and PAC services, as well as to inform evidence-based best practices in service delivery.

Existing guidance on safe abortion

While Liberia's current legal framework has provisions that permit safe abortion performed by a licensed physician, no further guidance is offered in any other national documents. The organization of safe abortion services (e.g. who may offer it, where could it be offered) is not mentioned in the Liberia Essential Package of Health Services (EPHS), nor are there validated clinical protocols to guide service delivery.

Figure 1. Percentage of facilities providing abortion



A recent assessment conducted in primary and secondary health facilities on the readiness and availability of SRH services in seven counties across Liberia—six priority counties as identified in the RMNCAH Investment Case, plus Montserrado—found that the provision of abortion is not standardized by facility level (facility-reported data) (Figure 1). (Clinton Health Access Initiative, 2018).

Existing guidance on PAC

The National Sexual & Reproductive Health Policy developed by the then Ministry of Health and Social Welfare in 2010 recognizes that in order to improve family planning services and increase uptake of contraceptives, the Government of Liberia shall "*encourage training of service providers and equip facilities to deliver quality comprehensive post-abortion care services, including family planning*" (Liberia MOH, 2010). However, there is no specific guidance on nature and scope of the training for service providers in PAC, the necessary equipment for PAC, or what constitutes comprehensive post-abortion care services.

The Liberia EPHS provides some guidance that post-abortion care should be offered as part of antenatal care / management of complications of pregnancy (Table 1) (Liberia MOH, 2011a; 2011b). According to the Liberia EPHS, primary health facilities (clinics) should be able to manage threatened or complete abortion; manage incomplete

abortion via manual vacuum aspiration; and refer cases of complicated abortion to higher level facilities. At the level of secondary and tertiary health facilities, secondary health facilities such as health centers should refer cases of complicated abortions, with treatment to be provided at district and county hospitals (secondary facilities) and at regional hospitals and the national referral hospital (tertiary facilities).

However, while the EPHS sets out signal functions for emergency obstetric and neonatal care (EmONC) services, with the removal of products of conception being one of the signal functions, global evidence highlights that this is only one component of PAC. Thus, there remains a lack of clear, focused national guidance that is needed to not only strengthen EmONC signal functions as they relate to post-abortion care, but also to define the full PAC service package (for example, the inclusion of family planning and counseling) and institutionalize post-abortion care.

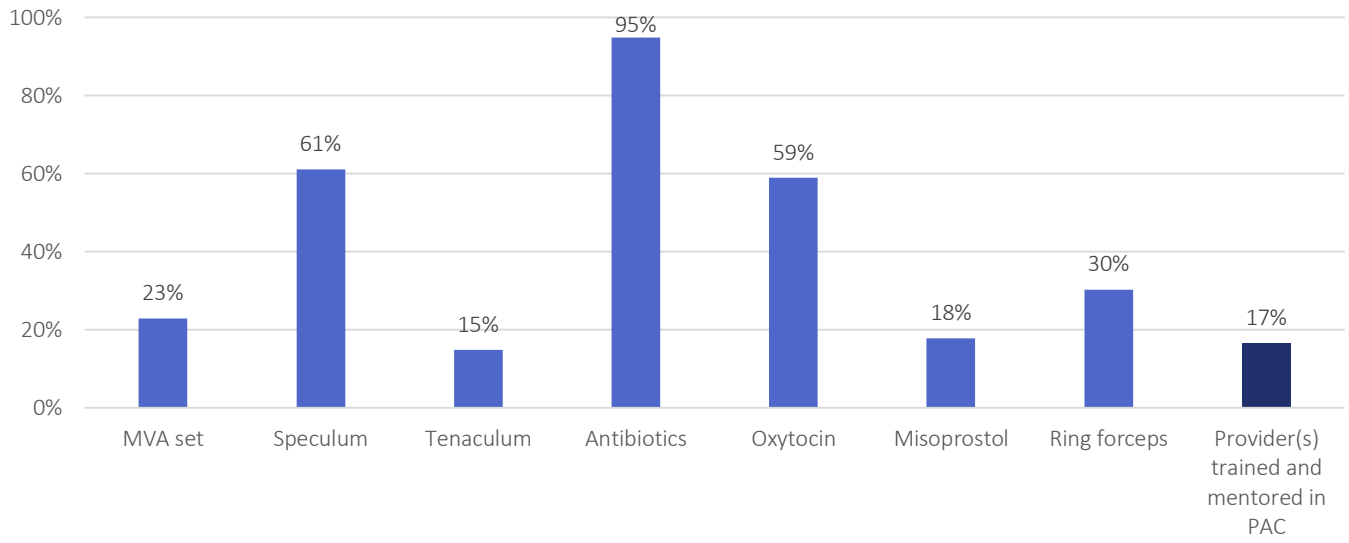
Table 1. Current Liberia EPHS guidance for PAC

Service	***Primary***	***Secondary***			***Tertiary***	
	Clinics	Health centers	District hospitals	County hospitals	Regional hospitals	National referral hospital (JFK Medical Center)
Manage complications of pregnancy – Manage threatened or complete abortion	Yes	Yes	Yes	Yes	Yes	Yes
Manage complications of pregnancy – Manage incomplete abortion (Manual Vacuum Aspiration)	Yes	Yes	Yes	Yes	Yes	Yes
Manage complications of pregnancy – Manage complicated abortion	Refer	Refer	Yes	Yes	Yes	Yes
Removal of conception retained products	Yes	Yes	Yes	Yes	Yes	Yes

The lack of national guidance on human resource requirements, equipment and supplies needs, and package of services have resulted in low provider and facility readiness to deliver quality PAC services, as well as variations in the type of PAC services offered. Facility assessment findings show that only 14% of service providers have ever received in-service training in PAC, and only 21% of service providers have ever received in-service training in EmONC; even fewer have ever received on-the-job mentoring on these topics (Clinton Health Access Initiative, 2018).

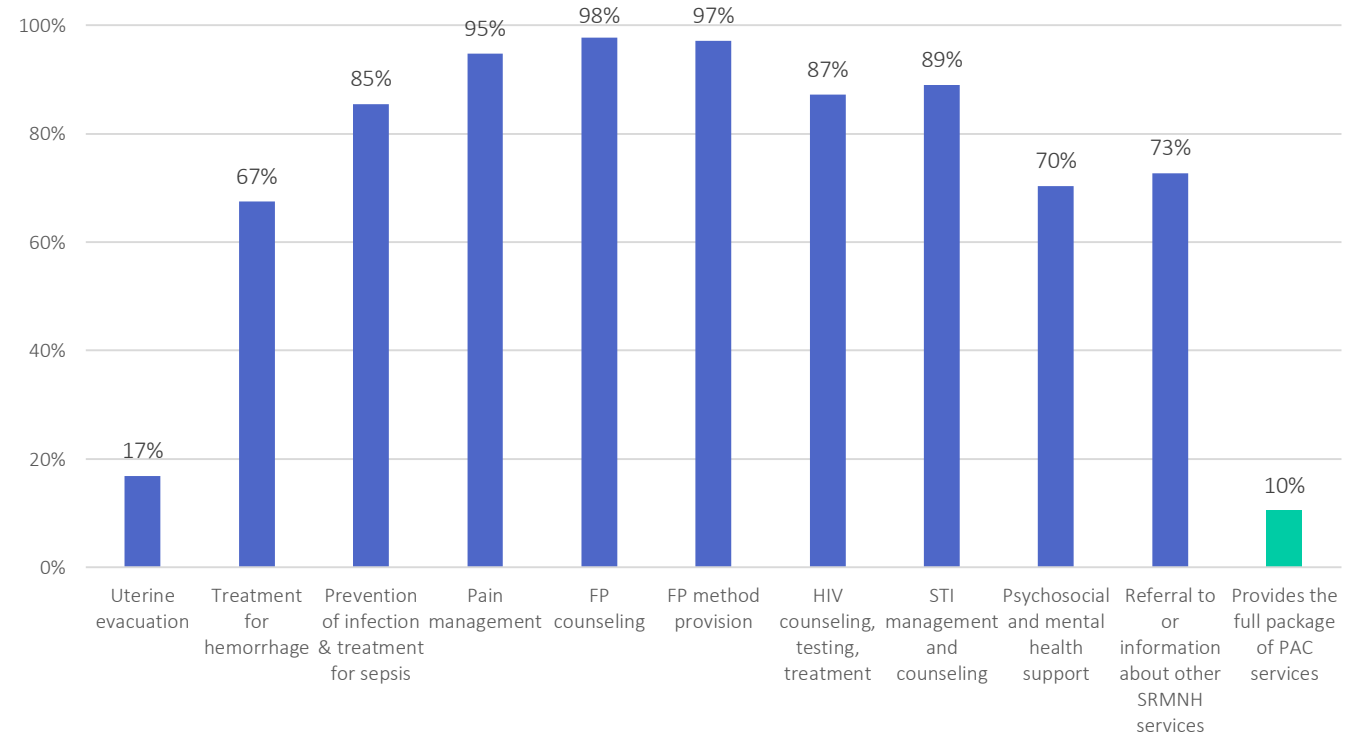
Commodities and supplies necessary for post-abortion care services are not widely available in the facilities assessed, with manual vacuum aspirators (MVA), tenaculum, ringed forceps, and misoprostol as major bottlenecks (Figure 2). When commodities and supplies are considered together with availability of trained/mentored providers in a facility, less than 1% of facilities assessed could be considered an access point for comprehensive PAC services.

Figure 2. Percentage of facilities satisfying key PAC access point criteria (N=176)



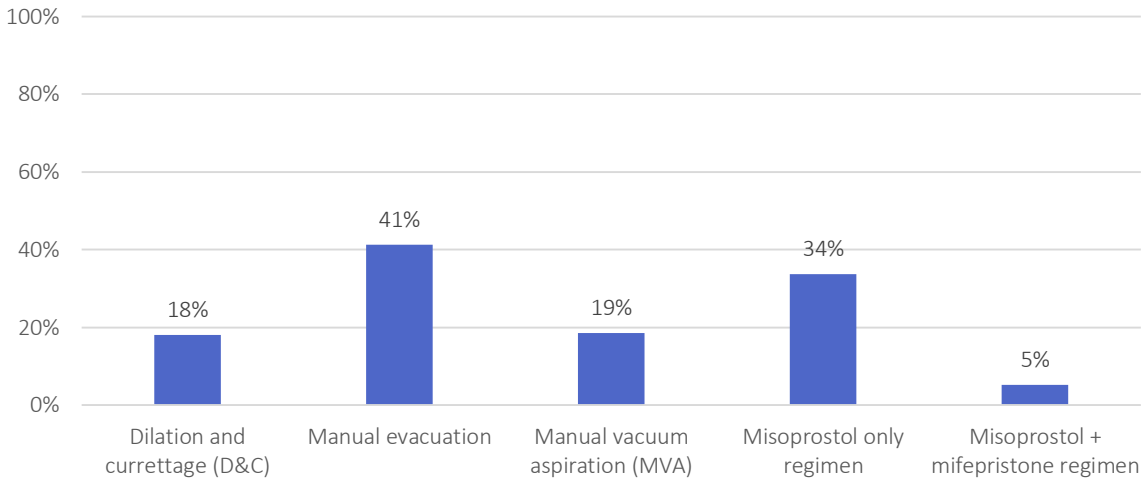
Furthermore, there is variability among facilities on the type of services offered as a component of PAC (Figure 3). While the majority of facilities reported offering family planning as a part of PAC (98% for FP counseling, 97% for method provision), only 17% of facilities reported providing uterine evacuation in post-abortion emergencies. Across the facilities assessed, only 10% of facilities are providing the full package of PAC services, inclusive of all the necessary service components.

Figure 3. Percentage of facilities providing each service as a component of PAC (N=172)



The procedures by which facilities use to manage incomplete abortions are also not standardized (Figure 4). Best practice procedures such as use of misoprostol and MVA for management of PAC are used in only a few facilities (34% and 19%, respectively).

Figure 4. Percentage of facilities reporting each procedure for management of incomplete abortions (N=172)



Rationale for national CAC guidelines

Clear programmatic and clinical guidance endorsed by the MOH is necessary to standardize the organization of services, remove ambiguity and fear of prosecution from both providers and patients, and improve confidence and skills of providers in delivering high-quality CAC services, inclusive of the safe abortion and PAC, such that complications and deaths from unsafe abortions can be prevented. Ultimately, the national comprehensive abortion care guidelines are intended to address the following:

Safe abortion

- ❑ When can safe abortion services be offered under Liberia's legal framework? Who can receive safe abortion services?
- ❑ Who can deliver safe abortion services and what are facility requirements at different levels of the health system?
- ❑ How should safe abortion be provided under best clinical practice?
- ❑ How do we monitor performance in safe abortion care?

Post-abortion care

- ❑ When should PAC services be provided? Who can receive PAC services?
- ❑ Who can deliver PAC services and what are facility requirements at different levels of the health system?
- ❑ What constitutes PAC and what package of services does this entail?
- ❑ How should PAC services be provided under best clinical practice?
- ❑ How do we monitor performance in PAC?

Vision, Guiding Principles, Goals & Intended Outcomes

It is the vision of the Ministry of Health that ***no woman and girl suffers or dies from abortion-related complications.***

By formalizing the commitment to the provision of comprehensive abortion care through these guidelines, the MOH recognizes that safe abortion care under legal provisions, along with timely and high-quality PAC services that are widely available and easily accessible are essential to prevent further unplanned pregnancies, to decrease the incidence of repeat abortion, and to reduce maternal morbidity and mortality.

Guiding principles

The following principles should guide the implementation of CAC services in Liberia:

- Provision of high-quality and comprehensive CAC services based on evidence-based best practice guidelines
- Provision of non-judgmental CAC services that protects patient privacy and confidentiality
- Provision of CAC services that recognizes women and girls' right to dignified and respectful maternal health
- Equal access to high-quality services for hard-to-reach, vulnerable, and disadvantaged populations, such as adolescents and populations in rural and remote areas
- Engagement and empowerment of communities in the design, implementation, and monitoring of CAC services
- Integration of SRMNH services, inclusive of comprehensive family planning, across all levels of the health system

Goals

- Reduce maternal morbidity and mortality related to unsafe abortions
- Increase contraceptive uptake among women and men (including girls and boys) to prevent unintended pregnancies
- Provide clear guidance to improve provider skills, attitudes, and confidence in the provision of CAC services

Intended outcomes

Community-level

- Increased awareness of the burden of unsafe abortions on maternal mortality
- Increased knowledge about CAC services and where they can be accessed
- Increased access to and use of CAC and other related SRH services
- Increased contraceptives uptake to reduce unintended pregnancies and repeat abortions
- Improved community-to-facility referral and linkages in CAC and other related SRH services

Facility-level

- Improved knowledge, skills, and attitudes of providers as it relates to CAC
- Increased number of health facility that are access points for PAC, and improved service organization in health facility that qualify as access points for CAC
- Improved quality of CAC services
- Improved accuracy and completeness of health information to generate evidence for decision-making
- Strong supply chain systems for commodities, supplies and equipment for CAC services
- Improved referral, follow-up and facility linkages in CAC and other related SRH services

Central level

- Standardized package of CAC services and guidance on service delivery
- Institutionalized comprehensive PAC services across all levels of the health system
- Institutionalize and standardize safe abortion services across all eligible facilities
- Clear roles and responsibilities of health system actors as it relates to CAC
- Strong coordination and partnership among health system stakeholders as it relates to CAC
- Standardized pre-service and in-service training scope and curricula surrounding CAC
- Sustainable financing and effective performance management systems for CAC services

Roles & responsibilities

The MOH through the Family Health Division (FHD) shall have the overall responsibility for coordination among all other Ministry units, agencies, institutions, and organizations involved in the provision of CAC services in the country (as a component of the broader package of RMNCAH services), and oversee the implementation of activities necessary to achieve the aforementioned outcomes.

PART A:

PROGRAMMATIC GUIDELINES

Patient Access & Rights

Safe abortion access

Safe abortion by a licensed physician is justified in Liberia as stated in the current Liberia Penal Code (Title 26) Section 16.3 under any of the following provisions:

- ❑ To save the life of the woman
- ❑ To preserve physical health
- ❑ To preserve mental health
- ❑ Rape, incest, or other felonious intercourse[1]
- ❑ Fetal impairment[2]

Physician certification

Two physicians must have certified in writing the circumstances which they believe to justify the abortion, under provisions set out in the Liberia Penal Code (Title 26) Section 16.3. This written certificate must be submitted before the abortion is performed, either to: (i) The hospital where the abortion is to be performed, or to the Minister of Health, if the abortion is not performed in a hospital, and (ii) The County Attorney or the police, if the abortion is following felonious intercourse. All other guidance below pertaining to CAC is predicated upon the understanding that abortion is performed under the legal provisions.

PAC access

All patients have the right to post-abortion care services, which should include all services as described in the comprehensive package of PAC services, such as emergency management of complications, family planning & other SRH services, psychosocial support, etc. *(see Package of Services, p.18 below for details)*. PAC should be available to all women and girls following either a spontaneous abortion (miscarriage) or an induced abortion, whether or not the induced abortion was performed legally or illegally. All PAC patients should receive the same quality of care regardless of her clinical presentation (e.g. missed, incomplete, septic, etc.). *See Part B: Clinical Guidelines, for details*.

Informed consent

Providers must explain all information related to the patient's abortion procedure, using language tailored to ensure the patient's understanding. Providers must explain the procedure, alternatives, risks and benefits, and allow the patient to make a voluntary informed decision. An abortion procedure can continue once informed consent has been obtained from the patient. Informed consent must not be a barrier or hindrance to life-saving care when a patient requires emergency treatment in post-abortion care cases.

Non-discrimination

Across all health facilities, CAC access must not discriminate based on patient income, age, marital/relationship status, religion, social status, sexual orientation, or health status. CAC access must be ensured for special subpopulations of women including but not limited to adolescents, women with HIV/AIDS, women who have experienced sexual & gender-based violence (SGBV), women who have experienced female genital mutilation (FGM), women with disabilities, and sex workers. Special considerations must be taken during service delivery for

[1] Per the Liberia Penal Code (Title 26) Section 16.3: "an illicit intercourse with a girl below the age of sixteen shall be deemed felonious"

[2] Fetal impairment as determined by ultrasonography

additionally vulnerable subgroups; e.g. adolescents may be more likely to undergo unsafe abortion and present later for treatment of complications. As with regular service delivery, adolescent-friendly attitudes and practices must form part of CAC. Women and girls with mental health conditions should also receive the appropriate psychological support, with referrals made to mental health professionals where needed.

Privacy & confidentiality

It is unlawful for any person to disclose to a third-party the information of an individual's abortion. Furthermore, service providers are expected to create a respectful and non-judgmental environment for CAC patients, and ensure that the woman's/girl's privacy and confidentiality is protected.

User fees

In line with provisions laid out in the EPHS and the National Health and Social Welfare Policy and Plan (2011-2021), services included in the EPHS, such as PAC services are legally exempt from user fees at all public sector facilities. It is the stance of the MOH that safe abortion services in public sector facilities are exempt from user fees.

Package of Services

The package of CAC services consists of provision of post-abortion care, as well as safe abortion under legal provisions:

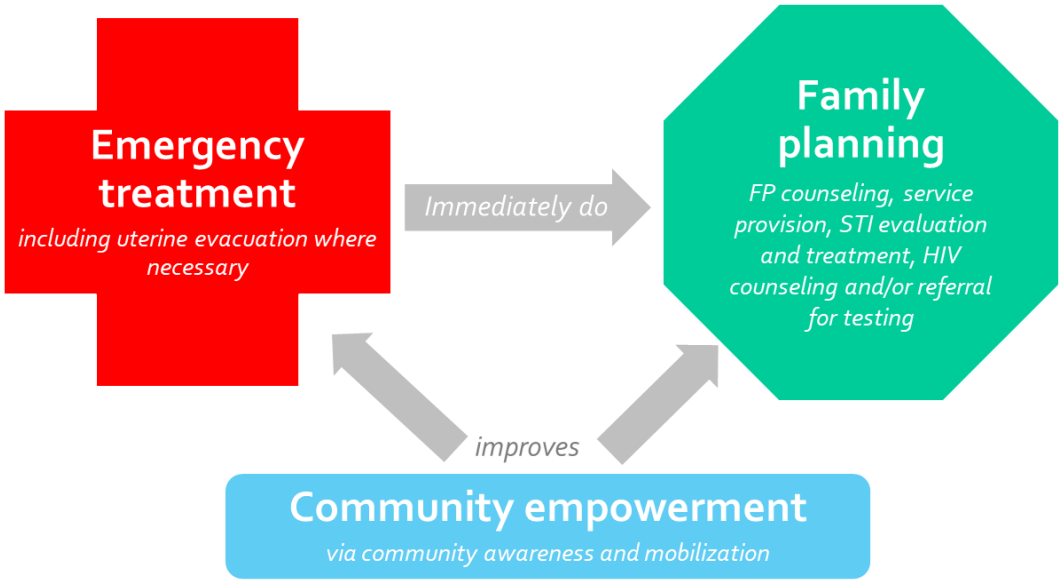
1) Abortion should only be provided to women and girls whose condition fulfills the current legal provisions for abortion
2) PAC should be provided to all women and girls who is currently experiencing or have experienced an abortion

Throughout service delivery, standard infection prevention & control (IPC) practices should be carried out according to existing national guidelines. The psychological sequelae of undergoing an abortion or miscarriage must be considered at each point of contact, and mental health support should be provided to women and girls at the point of service delivery or through appropriate referrals to other health professionals if needed (refer to the most current national mental health guidance[3]).

Components of PAC

PAC service delivery should fulfill both curative and preventive needs (Huber et al., 2016). It is curative in treating incomplete abortions and complications such as hemorrhage and sepsis, and preventive in providing family planning counseling and contraceptives to reduce unintended pregnancies and repeat abortions. Studies have shown that post-abortion family planning is able to increase contraceptive use, thereby reducing future unplanned pregnancy and repeat abortions (High Impact Practices, 2012). Liberia's guidelines will conceptualize PAC by adapting and building upon the Post-Abortion Care (PAC) Model developed by the United States Agency for International Development (USAID), which considers three core components for post-abortion care (Figure 5) (USAID PAC Working Group, 2007a). Comprehensive post-abortion care must consist of interventions in emergency treatment, family planning and other SRH services, and reinforcing community linkages.

Figure 5. Post-Abortion Care Model



[3] At the time of validation, this is the Liberia Mental Health Policy and Strategic Plan for Liberia (2016 – 2021)

Emergency treatment for complications of spontaneous or induced abortions

Emergency management should include rapid triage, immediate stabilization of the woman's condition, uterine evacuation (via medication or surgical means) to remove retained products of conception where necessary, and ongoing management of bleeding, pain, and infection. Treatment should be provided for common complications of abortion such as:

- Shock
- Bleeding or hemorrhage
- Infection and sepsis
- Intra-abdominal injury

In addition, evacuation of the uterus should be conducted where necessary, using either one or both of the following methods:

- Medical uterine evacuation
- Surgical uterine evacuation using MVA or dilatation and evacuation (D&E)

See Part B: Clinical Guidelines for details.

Family planning & provision of other SRH services

If there are no complications in the immediate post-abortion period, women and girls can safely use a wide range of contraceptive methods (WHO, 2014; WHO/RHR and JHSPH 2018). Thus, during the same encounter, family planning (FP) counseling should be provided to the woman such that she is aware of the wide-range of contraceptive methods available to her. In addition, based on a comprehensive physical examination and history-taking, other SRH services should be offered during the same care encounter as needed. These services include, but are not limited to:

- STI screening, management and counseling (including contact-tracing)
- HIV counseling, testing, treatment and/or referral
- Screening, management and/or referral for confirmed or suspected gynecological pathologies (e.g. cervical cancer)
- Response to other concerns such as fertility, SGBV, FGM
- General SRH education and information

See Part B: Clinical Guidelines for details.

Community linkages: empowerment, awareness, and mobilization

Involvement of the community as a whole is needed for increased family planning uptake and sustained implementation of high-quality CAC services (PAC Consortium Community Task Force, 2002; USAID, 2007b). Governmental institutions (Ministry of Health, Ministry of Education, etc.), private organizations, faith-based groups, local elected officials, traditional and other leaders, and residents of local communities must work in partnership. At the central level, the general strategic direction of community-based activities should be set collaborative by the Community Health Services Division (CHSD), Health Promotion Unit, and FHD. This partnership should be leveraged to increase community awareness of the burden of unsafe abortions on maternal morbidity and mortality, sensitize the community to the importance of PAC, and increase knowledge of where PAC services can be accessed. For women who are eligible to undergo an abortion as permitted by the law, communities should also work to increase knowledge of where safe abortion services can be accessed.

See Part B: Clinical Guidelines for details.

Level of Service Delivery

Safe abortion services can only be performed in health facilities with trained physicians throughout the fifteen counties of Liberia. Where provider, commodity, or infrastructure constraints exist, appropriate referrals must be made to another suitable facility.

PAC services should ultimately be available in all health facilities (public and private) throughout all fifteen counties of Liberia and cover rural and urban areas. The components of PAC service offered will be different depending on the level of service delivery point. However, all facility-based service delivery points should ideally offer the comprehensive package of PAC services as described above. Where provider, commodity, or infrastructure constraints exist, appropriate referrals must be made to another facility, from the community to the health facility, per current existing national referral guidelines. The organization of CAC services by facility level is outlined in Table 2 below.

Table 2. CAC service delivery by health system level

<table>
<tr><th>Health system level</th><th>Facility type</th><th>PAC services</th><th>Safe abortion services</th></tr>
<tr><td rowspan="2">Primary</td><td>Community-based service points</td><td>Community-based service providers include trained traditional midwives (TTM), general community health volunteers (gCHV), and community health assistants (CHA). They have the responsibility to make appropriate referrals to link post-abortion patients in the community to health facilities, particularly for emergency treatment. For non-emergent patients, community-based providers also have the responsibility to make appropriate referrals to link post-abortion patients to other SRH services. CHAs, within their current scope of practice, are responsible for providing family planning counseling, certain contraceptive methods, and HIV/AIDS education and prevention messaging, and counseling for treatment adherence</td><td>N/A</td></tr>
<tr><td>Clinic</td><td rowspan="6">Must offer all or part of the PAC service package (emergency treatment including uterine evacuation; FP counseling and provision of other SRH services; community empowerment, awareness, and mobilization). The capacity to either manage or refer post-abortion patients will be dependent on the facility's availability of commodities, supplies and equipment, trained providers, and other infrastructure; where these constraints exist, appropriate referrals must be made to a higher-level facility. PAC services can be provided by nurses, midwives, physician assistants, or physicians.</td><td rowspan="6">Must offer safe abortion in cases where a woman/girl's condition satisfies the legal provision for abortion. Safe abortion can only be provided by physicians.</td></tr>
<tr><td rowspan="3">Secondary</td><td>Health center</td></tr>
<tr><td>District hospital</td></tr>
<tr><td>County hospital</td></tr>
<tr><td rowspan="2">Tertiary</td><td>Regional hospital</td></tr>
<tr><td>National referral hospital</td></tr>
</table>

Health Workforce

Eligible cadres of service providers

Facility-based providers

Only licensed physicians are eligible to perform safe abortion services.

Licensed skilled birth attendants (nurses, midwives, physician assistants, physicians) are eligible to perform the following PAC services safely:

- Management of complications such as shock, severe bleeding or hemorrhage, infection or sepsis, and intra-abdominal injury
- Uterine evacuation during emergency treatment, using MVA or misoprostol
- Family planning counseling
- Provision of contraceptive methods chosen by the woman (except surgical methods such as vasectomy and bilateral tubal ligation [BTL])
- Blood transfusions in eligible secondary or tertiary health facilities
- Other related SRH services within their respective current scopes of practice

Licensed physicians are eligible to perform all of the above PAC services mentioned, and in addition should be able to perform specialized services including but not limited to:

- Surgical procedures for the treatment of complications
- Surgical contraceptive methods such as vasectomy and BTL

Community-based providers

Community-based service providers include trained traditional midwives (TTM), general community health volunteers (gCHV), and community health assistants (CHA). Their scope of work as it relates to comprehensive abortion care services is outlined per Table 2 in the Level of Service Delivery section above.

Specifically, in line with the most current national community health guidance[4], functions to be performed by CHAs that are in alignment with the package of PAC services as defined in this guidance include:

- Well-being check for mother and newborn
- Identification and referral for maternal danger signs
- Counsel about danger signs for mother and newborn, the need for prompt recognition and care-seeking, and advise on where to seek early care when needed
- Provide birth spacing and family planning counseling
- Family planning promotion, counseling, and service provision; referral for additional family planning counseling and services where needed
- HIV/AIDS education and prevention messaging, and counseling for treatment adherence Identification of danger signs in pregnancy and referral to health facilities
- Health promotion and outreach through household visits and use of information, education and communication (IEC) material
- Community engagement, coordination, and mobilization

[4] At the time of validation, this is the National Community Health Services Policy (2016-2021)

Health promotion and outreach activities conducted by community-based providers should be planned and implemented following the most current national health promotion guidance[5].

Training

The provision of high-quality CAC services requires focused improvements and strengthening of pre-service training as well as in-service training, to ensure that the necessary knowledge and skills make up a core component of training for skilled birth attendants.

Standardized safe abortion curriculum

Pre-service and in-service training curricula should be reviewed and revised to ensure comprehensive coverage of contents on the safe abortion, based on current best practices and international clinical guidance. The curriculum should also include a component on values clarification and attitude transformation (VCAT) to reinforce respectful and non-stigmatized service delivery.

Standardized PAC curriculum

Current pre-service and in-service training curricula and materials should be reviewed and revised to ensure incorporation of comprehensive content on PAC that is based on current best practices and international clinical guidance. In addition to alignment with clinical best practices, the national PAC curriculum should also include a component on VCAT to reinforce respectful and non-stigmatized service delivery. If there are current gaps in the curricula, new training materials should be developed by the MOH in association with professional boards and training institutions. The curriculum and its package of training materials should be used for standardized PAC training across the country, whether MOH-led or partner-led, and be included as an integral component of the broader training curriculum for RMNCAH. Pre-service PAC training should be considered a requirement prior to graduation and licensing with professional boards. In-service PAC training should be considered as a component of continuing professional development (CPD) and a requirement prior to license renewals.

Mentoring

Clinical mentoring is an approach to knowledge and skills transfer that complements in-service training such that providers are supported outside of the classroom, in the facility setting. This is done through on-the-job support and supervision where newly acquired (or refreshed) knowledge and skills are reinforced. To improve provider knowledge and skills in delivering CAC services, clinical mentoring should be conducted on a routine basis by county and district-level clinical supervisors and reproductive health supervisors, as part of the broader effort in RMNCAH mentoring. Clinical mentoring should strengthen the technical capacity as well as improve the attitude of service providers in delivering high-quality CAC services.

[5] At the time of validation, this is the National Policy and Strategic Plan on Health Promotion (2016-2021)

Monitoring & Evaluation

The current health information system used by the MOH does not adequately capture the full extent of unsafe abortions and post-abortion care service volume in the country. There are currently four data elements reported that are related to abortion and PAC: '*Abortion (OPD death)*' and '*Abortion (new cases)*' for the outpatient department (OPD); and '*Abortion death*' and '*Abortion discharge*' for the inpatient department (IPD). However, a clear definition for each data element is still under revision and there is no clear guidance on how patients presenting for induced or spontaneous abortions may be captured differently than patients presenting for post-abortion care. In addition, there is no guidance on how to avoid the double-counting of abortion-related cases as patients move from the OPD to the IPD or as patients are referred from primary care facilities to secondary level facilities. Thus, there is a significant gap in data and evidence on unsafe abortions and PAC case volume at the facility, and the exact burden of unsafe abortions and PAC on maternal morbidity and mortality remains unknown. Furthermore, lack of data on abortion and PAC can result in inaccurate quantification and subsequent procurement of abortion-related commodities.

In light of this, there is a need to review routine reporting in HMIS as it relates to abortion and PAC, and to develop a standard and accurate method to measure burden of unsafe abortion and PAC service volume (for example, determining which existing facility ledger should be used, or to introduce new ledgers).

Indicators of interest that should be defined and captured as part of improved routine reporting of abortions and post-abortion care may include:

- ❑ Number of abortion cases (age-disaggregated)
- ❑ Number of PAC cases (age-disaggregated)
- ❑ Number/percentage of patients presenting with each complication type
- ❑ Number/percentage of patients treated with each emergency treatment procedure (medical uterine evacuation vs. MVA)
- ❑ Number/percentage of patients receiving post-abortion FP counseling
- ❑ Number/percentage of patients accepting post-abortion FP method, by method type
- ❑ Number/percentage of patients who received information and/or referral for other SRH services

Centrally, the Health Information Systems, Monitoring, Evaluation, and Research (HMER) Unit, along with FHD, should update and finalize indicator definitions for all abortion and PAC-related indicators. Using the existing health information system for routine reporting, abortion and PAC data should be collected at the health facility level using the appropriate ledgers based on the updated indicator definitions. Facility data should then be aggregated monthly and reported on the Monthly HMIS Reporting Form to the county level, which should then be aggregated at the national level. Abortion and PAC data should continue to be hosted on the existing DHIS-2 platform, however, age-disaggregation of indicators should be incorporated for analysis of adolescent-specific data.

Feedback on abortion and PAC data should follow the reverse flow and be disseminated regularly (e.g. quarterly) from the central level, back to the county, district, and facility level. Feedback on this data should be actionable and be used to inform decisions such as resource mobilization/reallocation, training and mentoring, community outreach, commodity quantification, etc. In addition, qualitative evidence on abortion and PAC cases should be collected and disseminated regularly through forums such as the Maternal Death Surveillance and Response (MNDSR) Technical Committee.

Lastly, the MOH's integrated Human Resource Information system (iHRIS) must be utilized to record service provider training, mentoring, certification and licensing, and other credentials as it relates to CAC. Appropriate corrective actions in training and mentoring must be taken where data indicate gaps in provider capacity and competency.

Research

Operational and implementation research may help inform improved implementation of CAC services. Potential areas for research may include:

- Readiness of service delivery points for CAC
- Abortion and PAC service volume
- Community knowledge, attitudes, and practices surrounding CAC
- Health worker knowledge, attitudes, and practices surrounding CAC
- Patient perception and satisfaction with CAC services at facilities

Supply Chain

The provision of CAC in health facilities is contingent on the availability of the right medicines, medical equipment and consumables, and supplies at the service delivery point; thus there is need to strengthen supply chain performance.

The MOH Supply Chain Management Unit (SCMU), Pharmacy Division, working closely with the Central Medical Store (CMS), Liberia Medicines and Health Products Regulatory Authority (LMHRA), and FHD, should ensure a continuous supply of high-quality and safe medicines, commodities, supplies and equipment for the delivery of CAC. A standard list of essential CAC medical equipment, consumables and supplies *(see Appendix 2)* should be appended to the National Standard Therapeutic Guidelines and Essential Medicines List (Liberia MOH, 2017), and to the Essential Package of Health Service (Liberia MOH, 2011). When new global evidence and guidance emerges on the use of medical commodities and equipment for CAC that are not currently listed on the STG/EML, a review and revision of the STG/EML may be conducted to consider their inclusion. Similarly, when new global evidence and guidance from WHO emerges that countries should discontinue the use of medical commodities and equipment for CAC that are currently listed on the STG/EML, a review and revision of the STG/EML will be conducted to discontinue their use.

There is also a need to strengthen the logistics management information system (LMIS) to improve accurate monitoring and reporting of health facility consumption data for medicines, medical supplies and equipment, and consumables. Where necessary, Stock Status Report and Requisition (SSRR) or other LMIS forms should be revised to ensure all CAC medicines, medical supplies and equipment, and consumables are included.

Financing & Sustainability

Donors and partner organizations should be briefed on the CAC standards and guidelines such that incoming technical support and resources can be directed to support priority activities in focus areas as identified by the government. There should be no duplication of efforts or development of parallel systems related to the implementation and strengthening of CAC services.

Guideline Dissemination & Review

To ensure understanding of roles, responsibilities, and scope of the package of CAC services to be offered, all health system actors should be oriented to the national CAC guidelines. Dissemination of the guidelines should include an open dialogue with service providers to understand the importance and need for CAC services, and dispel any misconceptions regarding the offer of these services within the existing legal framework. Where possible, dissemination should be done through regular stakeholder engagement forums, such as the Health Sector Coordination Committee (HSCC), Reproductive Health Technical Committee (RHTC), and County Health Coordination (CHC) meetings.

Dissemination of the programmatic guidelines should be conducted at the central, county, district, facility, and community levels, and copies of the guidelines document should be present at each service delivery point. Dissemination of the clinical service delivery guidelines should be conducted similarly.

The guidelines should be reviewed at least every five (5) years, or whenever the need arises (for example, due to new evidence on clinical best practice, or when there is a change in the relevant legal framework). The current CAC guidelines are thus effective until January 2025, unless a review and revision is warranted before said date. An advisory group under the RHTC should be formed for the periodic review and revision of these national guidelines.

PART B:

CLINICAL GUIDELINES

Section 1
Safe Abortion
for legal indications

Safe Abortion Methods Available

Safe abortion can be performed using either medical or surgical means. Medical abortion refers to the termination of pregnancy using misoprostol, or a combination of misoprostol and mifepristone. Surgical abortion refers to the termination of pregnancy using manual vacuum aspiration (MVA) or dilatation and evacuation (D&E).

Patients should be offered a choice of abortion methods when both medical and surgical options are available. The method used will be dependent on the patient's gestational age (Table 3) (WHO, 2012; MSF, 2015), other patient considerations, as well as on provider, commodities and equipment availability at the health facility. Counseling regarding the advantages and disadvantages of each method is important for informed decision-making, and all patient criteria should be reviewed to determine the most appropriate method. Also see *Appendix 3: Decision Flowchart for Uterine Evacuation Methods.*

Table 3. Comparison of methods for safe abortion

	Medical abortion		Surgical abortion	
Method by gestational age*	***Gestation < 12 Weeks***	***Gestation ≥ 12 Weeks***	***Gestation < 12 Weeks***	***Gestation ≥ 12 Weeks***
	Mifepristone + misoprostol OR misoprostol only		MVA	D&E
Effectiveness	• Mifepristone + misoprostol regimen is 95-98% effective • Misoprostol only regimen is 83-87% effective		• 97-99% effective	
Advantages	• Non-invasive method • Low infection risk • No risk of uterine perforation or trauma to proximal structures		• No absolute contraindications • IUCD can be inserted at the same time, at the end of the procedure, if client has chosen the method • Can be used in an unstable patient	
Disadvantages	• Heavy bleeding and cramping • Bleeding often lasts longer than after MVA • Side effects such as nausea/vomiting • MVA may still be required in case of failure (i.e. continuing viable pregnancy)		• Invasive method • Facility must have available and sterile equipment • Procedure can be painful • (Low) risk of uterine perforation or cervical laceration • Antibiotic prophylaxis required	

**The methods summarized here are indicative rather than prescriptive with regard to the time limits. Furthermore, exact regimen, procedural information and other considerations are described in detail in the sections below, organized by gestational age.*

Clinical Assessment: History-Taking, Physical and Pelvic Examination

History-taking, physical and pelvic examination of the patient, and determination of gestational age must be done prior to initiating an abortion.

See Section 2: Post-Abortion Care – Clinical Assessment: History-Taking and Physical Examination, p.41 below for details.

Managing Abortion Complications

When abortion is performed by trained staff under modern medical conditions, complications are very rare and the risk of death is negligible (WHO, 2012). Nevertheless, facilities should be equipped and have providers trained to recognize abortion complications for management or referral.

See Section 2: Post-Abortion Care – Emergent Triage & Management of Complications, p.36 below for details.

Counseling

Counseling is a focused, time-intensive and interactive dialogue between provider and patient to provide support, information and guidance. Counseling is relevant throughout the entire abortion process, from emergency treatment, to family planning, to referral for other services. Counseling should be conducted pre-procedure, during the abortion procedure, and post-procedure.

See Section 2: Post-Abortion Care – Counseling, p.44 below for details.

Pain Management

Most women report some degree of pain with abortion. Pain management options available to the patient should be disclosed during pre-procedure counseling, and all patients should be offered appropriate pain management. Source of pain and severity of the pain will vary between individual patients, and both pharmacological and non-pharmacological methods for management should be considered and used as appropriate to the patient's needs. Attention must be paid to a patient's medical history, allergies, and concurrent use of medications that might interact with analgesic or anesthetic agents.

See Section 2: Post-Abortion Care – Pain Management, p.45 below for details.

Family Planning & Provision of Other SRH Services

Family planning counseling should be conducted prior to the abortion procedure as well as following the abortion procedure. In general, if there are no complications in the immediate post-abortion period, women can safety use a wide range of contraceptive methods (WHO, 2014; WHO/RHR and JHSPH 2018). As with the initiation of any method of contraception, providers should verify the woman's medical eligibility for a method using the most up-to-date *WHO Medical Eligibility Criteria for Contraceptive Use* for detailed guidance (WHO, 2015). In addition, based on a comprehensive physical examination and history-taking, other SRH services should be offered during the same care encounter as needed.

See Section 2: Post-Abortion Care – Post-Abortion Family Planning, p.63 below for details.

Abortion Procedures for Gestation < 12 Weeks

Medical Abortion < 12 Weeks

If gestational age is < 12 weeks based on clinical examination, a regimen with mifepristone PLUS misoprostol (more effective), or a regimen with misoprostol ONLY (less effective) may be used.

Step 1. Determine patient eligibility for medical abortion

Physical examination, bimanual and speculum examination should have taken place at this point. Medical abortion can be performed unless the patient presents with any of the following conditions:

- ❑ Coagulation disorders
  - Use of MVA procedure is preferred in this instance
- ❑ Previous allergic reaction to mifepristone or misoprostol
- ❑ Chronic adrenal failure and severe uncontrolled asthma (if regimen with mifepristone is used)
- ❑ Ectopic pregnancy
- ❑ Molar pregnancy

Step 2. Conduct pre-procedure counseling

2.1 Counsel the patient that she may experience the following side-effects after a medical abortion:

(i) Cramping and bleeding, which normally lasts for a few days
- Intense cramps 1-3 hours after using misoprostol
- The heaviest bleeding occurs 2-5 hours after using misoprostol (will pass blood clots, some tissues); this usually slows down within 24 hours and should not exceed 48 hours

(ii) Nausea, diarrhea, and a fever that should not persist for more than 24 hours after taking the medication

(iii) Shaking and shivering may take place for 30 minutes to 1 hour
- This typically presents 30 minutes after administration of the drug

2.2 Counsel the patient that in case of medication failure, vacuum aspiration will be performed.
- The patient should remain at the facility until either medical abortion or surgical abortion has been completed

2.3 Counsel the patient on her family planning options. This can and should also be done post-procedure.

See Section 2: Post-Abortion Care – Post-Abortion Family Planning, p.63 below for details.

Step 3. Administer medication for abortion (gestation < 12 weeks)

For patients who are eligible for medical abortion, administer either the mifepristone PLUS misoprostol regimen, or the misoprostol ONLY regimen (Table 4) (MSF, 2015; WHO, 2018):

Table 4. Regimen for medical abortion: Gestation < 12 weeks

Mifepristone plus misoprostol	Misoprostol only
1) Administer **mifepristone PO 200 mg** under direct observation of a trained clinician (as stipulated under current legal framework).	1) Administer **misoprostol buccally, vaginally, or sublingually 800 mcg** under direct observation of a trained clinician (as stipulated under current legal framework). (i) Within 1-3 hours, bleeding should occur; if no bleeding occurs, administer additional doses of misoprostol at 800 mcg, every 3 hours until all products are expelled* a) Manage pain appropriately *(see p.45 below for details)*** (ii) The patient should remain at the facility until complete expulsion occurs. (iii) Conduct clinical assessment to confirm complete expulsion. • A routine follow-up visit is recommended only in the case of medical abortion using misoprostol alone, to assess success of the abortion (iv) Surgical abortion should be performed in case of medication failure.
2) Instruct the patient to return to the health facility 1-2 days later. • In cases where return to facility will be difficult or if there is a chance of loss-to-follow-up, patient should remain at the facility under the regimen has been completed • *Note that minimum time between mifepristone and misoprostol administration should be at least 24 hours*	
3) Administer **misoprostol buccally, vaginally, or sublingually 800 mcg** under direct observation of a trained clinician (as stipulated under current legal framework). (i) Within 1-3 hours, bleeding should occur; if no bleeding occurs, administer additional doses of misoprostol at 800 mcg, every 3 hours until all products are expelled* a) Manage pain appropriately *(see p.45 below for details)*** (ii) The patient should remain at the facility until complete expulsion occurs. (iii) Surgical abortion should be performed in case of medication failure.	

**Note that the most recent WHO guidance (2018) does not indicate a maximum dose of misoprostol: Repeat doses of misoprostol can be considered when needed to achieve success of the abortion process. Providers should use caution and clinical judgement to decide the maximum number of doses of misoprostol in pregnant individuals with prior uterine incision.*

***In case of nausea/vomiting, administer antiemetic: Metoclopramide PO: 5 mg/dose for women who weigh less than 60 kg/132.28 lbs, 10 mg/dose for women who weigh more than 60 kg/132.28 lbs; interval between each dose should be at least 6 hours*

Step 4. Conduct post-procedure counseling

Follow procedures as detailed in Section 2 – Post-Abortion Care: Medical uterine evacuation, p.47-49 below.

Surgical Abortion < 12 Weeks: MVA

Manual vacuum aspiration (MVA) is a safe and effective technique for abortion with gestational age < 12 weeks.

Follow procedures as detailed in Section 2 – Post-Abortion Care: Surgical uterine evacuation, MVA, p.50 below.

Abortion Procedures for Gestation ≥ 12 Weeks

Medical Abortion ≥ 12 Weeks

If gestational age is ≥ 12 weeks based on physical examination, a regimen with mifepristone PLUS misoprostol (more effective), or a regimen with misoprostol ONLY (less effective) may be used.

Step 1. Determine patient eligibility for medical abortion *(follow p.30 above)*

Step 2. Conduct pre-procedure counseling *(follow p.30 above)*

Step 3. Administer medication for abortion (gestation ≥ 12 weeks)
For patients who are eligible for medical abortion, administer either the mifepristone PLUS misoprostol regimen, or the misoprostol ONLY regimen (Table 5) (Ipas, 2018; WHO, 2018):

Table 5. Regimen for medical abortion: Gestation ≥ 12 weeks

Mifepristone plus misoprostol	Misoprostol only
1) Administer **mifepristone PO 200 mg** under direct observation of a trained clinician (as stipulated under current legal framework).	1) Administer **misoprostol buccally, vaginally, or sublingually 400 mcg every 3 hours*** under direct observation of a trained clinician (as stipulated under current legal framework). (i) Manage pain appropriately *(see p.45 below for details)*** (ii) The patient should remain at the facility under complete expulsion occurs. (iii) Conduct clinical assessment to confirm complete expulsion. • A routine follow-up visit is recommended only in the case of medical abortion using misoprostol alone, to assess success of the abortion. (iv) Surgical abortion should be performed in case of medication failure.
2) Instruct the patient to return to the health facility 1-2 days later. • In cases where return to facility will be difficult or if there is a chance of loss-to-follow-up, patient should remain at the facility under the regimen has been completed • *Note that minimum time between mifepristone and misoprostol administration should be at least 24 hours*	
3) Administer **misoprostol buccally, vaginally, or sublingually 400 mcg every 3 hours*** under direct observation of a trained clinician (as stipulated under current legal framework). (i) Manage pain appropriately *(see p.45 below for details)*** (ii) The patient should remain at the facility until complete expulsion occurs. (iii) Surgical abortion should be performed in case of medication failure	

**Note that the most recent WHO guidance (2018) does not indicate a maximum dose of misoprostol: Repeat doses of misoprostol can be considered when needed to achieve success of the abortion process. Health-care providers should use caution and clinical judgement to decide the maximum number of doses of misoprostol in pregnant individuals with prior uterine incision.*
***In case of nausea/vomiting, administer antiemetic: Metoclopramide PO: 5 mg/dose for women who weigh less than 60 kg/132.28 lbs, 10 mg/dose for women who weigh more than 60 kg/132.28 lbs; interval between each dose should be at least 6 hours*

Step 4. Conduct post-procedure counseling

Follow procedures as detailed in Section 2 – Post-Abortion Care: Medical uterine evacuation, p.47-49 below.

Surgical Abortion ≥ 12 Weeks: D&E

Dilatation and evacuation (D&E) is the safest and most effective surgical technique for abortion after 12-14 weeks of pregnancy, where skilled, experienced providers are available (WHO, 2012). *Follow procedures as detailed in Section 2 – Post-Abortion Care: Surgical uterine evacuation, D&E, p.58 below.*

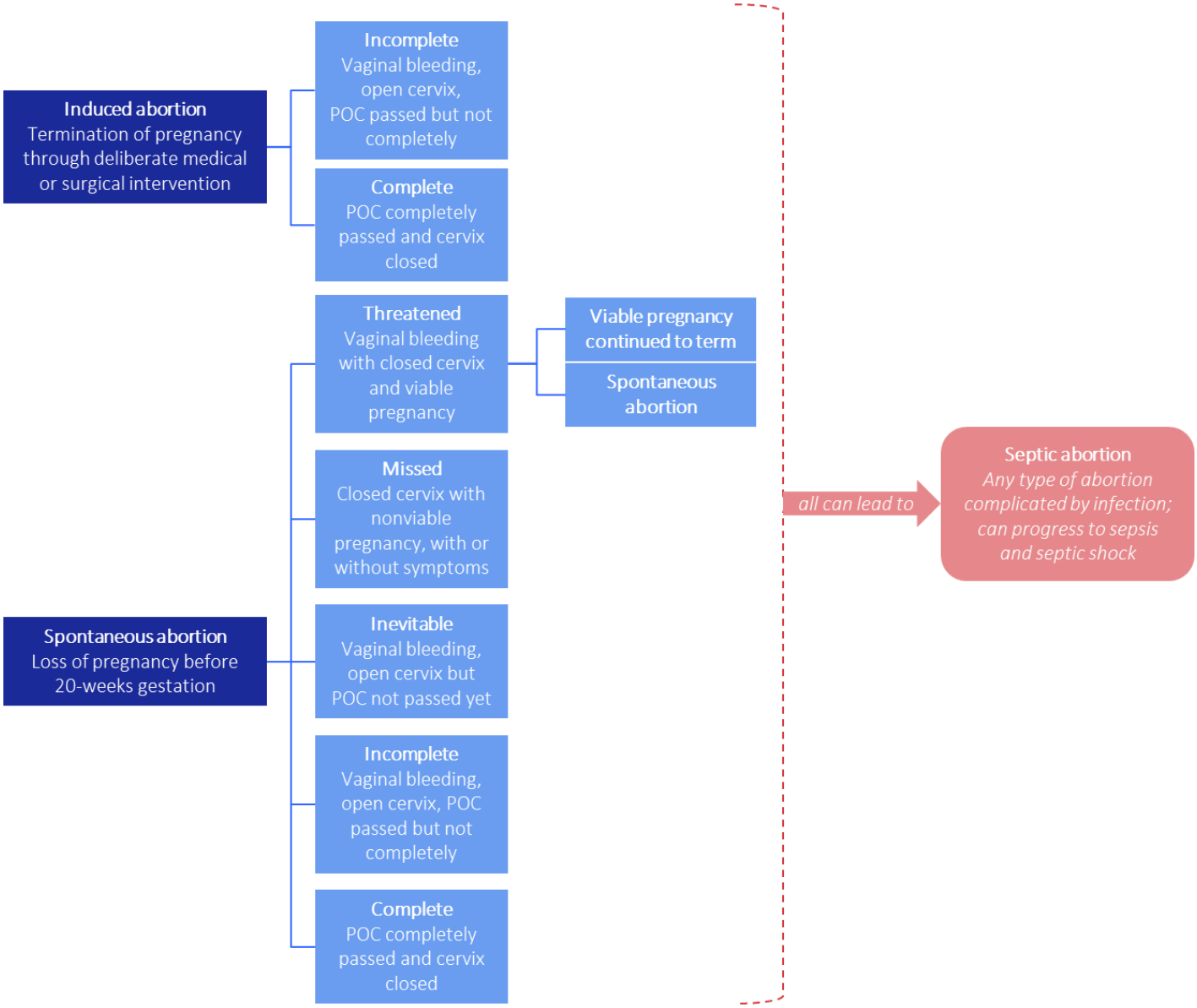
Section 2

Post-Abortion Care

Presentation of PAC Patients

Post-abortion patients may present differently at health facilities based on the types of abortion and the complications that may be associated. However, regardless of a patient's clinical presentation (Figure 6), emergency treatment of abortion complications must be provided as life-saving care.

Figure 6. Clinical presentation of different types of abortion



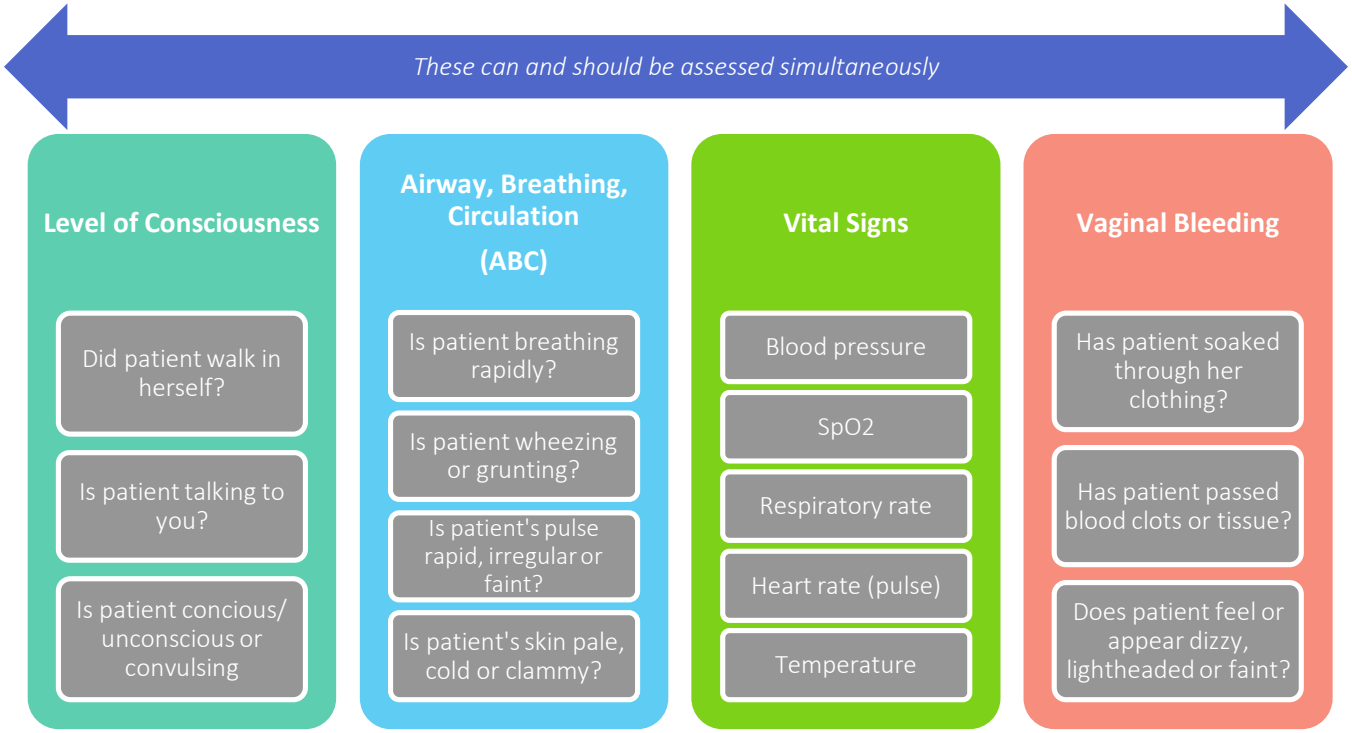
Emergency Triage & Management of Complications

Emergency triage should be used to immediately identify problems and taking quick action. When any patient presents, first assess her condition to determine what level of treatment is appropriate and whether your current facility has the appropriate resources *(See Appendix 2)* and skills to provide such treatment.

In life-threatening situations, the complete history, physical exam, and counseling must be delayed until the patient is stabilized and no longer in immediate danger.

During emergency triage and rapid assessment, many steps can be and should be performed simultaneously (Figure 7). Common complications in post-abortion patients that require immediate attention include shock, severe vaginal bleeding or hemorrhage, infection or sepsis, and intra-abdominal injury & uterine perforation.

Figure 7. Rapid initial assessment guide



Shock

Shock is a life threatening condition that occurs when tissues and organs in the body have reduced oxygen supply due to the body not getting enough blood flow. It requires immediate and intensive care. For most patients after abortion, shock is most commonly caused by either severe blood loss or hemorrhage (hemorrhagic shock) or infection/sepsis (septic shock).

Presentation

Conduct rapid assessment for every PAC patient to identify if any symptoms of shock are present.
Signs of shock include:

- Pallor or cold, clammy skin /extremities
- Impaired consciousness, confusion
- Rapid pulse
- Low blood pressure (systolic BP <90mmHg)
- Low urine output (<30cc per hour)
- Hematocrit <25%

Initial Management

- ❑ Keep the patient warm with blankets (but do not overheat)
- ❑ Elevate legs to increase blood return to heart and vital organs (use pillows, blankets)
- ❑ Continuous monitoring of vital signs (every 15 minutes)
- ❑ Give IV fluids (at least 2L [NS/RL or Haemaccel] over the first hour): start with 1000cc bolus of IV fluids over the first 15-20 minutes using a large-bore needle (16-18 gauge)
- ❑ Insert indwelling catheter
- ❑ Monitor input/output strictly (amount of IV fluids going in and estimated blood/urine coming out); Monitor urine color (dark/concentrated)
- ❑ If you suspect infection, collect blood cultures and start IV/IM antibiotics
- ❑ Draw blood for lab tests (hemoglobin and white blood cell count), type and screen (to cross-match blood), coagulation factors (or bedside clotting test)
- ❑ Consider blood transfusion; if not available, refer to higher-level facility
- ❑ If available, use devices such as the non-pneumatic anti-shock garment (NASG) to reverse hypovolemic shock and stabilize the patient

Continuing Management

Once patient is stabilized, look for underlying cause of shock:

- ➢ If cause is suspected to be heavy bleeding (i.e. hemorrhagic shock – *see Bleeding or Hemorrhage section (p.38) for details*):
  - ❑ Consider evacuating uterus of blood and possible POCs with MVA
  - ❑ Transfuse blood if possible
  - ❑ Apply NASG if available
- ➢ If cause is suspected to be infection (i.e. septic shock – *see Sepsis or Infection section (p.39) for details)*:
  - ❑ Collect blood cultures and other labs before starting antibiotics
  - ❑ Start broad spectrum antibiotics

Bleeding or Hemorrhage

Patient with prolonged or severe vaginal bleeding likely has retained products of conception (POC) or infection, or injury to the vagina, cervix or uterus. Prompt action to stop the bleeding and resuscitate with fluids and/or blood transfusion can be lifesaving measures.

Presentation

Conduct rapid assessment for every PAC patient to identify if any signs/symptoms of severe vaginal bleeding are present. Signs of severe vaginal bleeding include:

- Abundant gushing bleeding
- Bleeding that is heavier than normal period that persists for days or weeks
- Pale conjunctiva, around mouth and palms; weak, agitated, or disoriented, confused
- Blood pressure drop upon standing up, or feeling faint when standing up
- Increased heart rate

Initial Management

- ❑ Keep the patient warm with blankets (but do not overheat)
- ❑ Elevate legs to increase blood return to heart and vital organs (use pillows, blankets)
- ❑ Continuous monitoring of vital signs (every 15 minutes)
- ❑ Give IV fluids (NS/RL or Haemaccel) as appropriate prior to referral to higher-level facility for continuing treatment

Continuing Management

Once a patient is stabilized, **evaluate the potential underlying cause of the bleeding and manage accordingly**. If a patient continues to bleed despite initial management and/or continues to bleed from several places (from the gums, from the IV, etc.), refer and transfer patient to a higher-level facility.

Uterine atony (uterus not contracting well)

- ❑ Perform internal/external bimanual massage and abdominal aorta compression
- ❑ Administer uterotonics:
  - Misoprostol 800-1000 mcg rectally
  - Oxytocin 10 units IM
  - Oxytocin 20 units in 1L IV fluid

Place intrauterine balloon tamponade: Use 30-75mL Foley balloon or inflated condom with sterile gauze packing

Retained POCs

Perform MVA procedure: *See Surgical Uterine Evacuation section below (p.50).*

With severe vaginal bleeding, medical evacuation will not be rapid enough; proceed to MVA as first option. While performing MVA procedure, providers may still give uterotonics to encourage uterine contraction and help reduce the bleeding.

Cervical or genital tract lacerations or wounds

Repair lacerations or wounds, or refer to higher-level facility: *See Intra-Abdominal Injury & Uterine Perforation section (p.40) below.*

Sepsis or Infection

Sepsis is a potentially life-threatening condition cause by the body's response to an infection. Localized infection in the post-abortion patient can quickly lead to generalized infection, sepsis, and septic shock. Prompt attention and action to stabilize your patient and identify and remove the source of infection can be lifesaving. Generally, antibiotics and uterine evacuation are the mainstay of treatment, but surgical repair or removal of tissue may be necessary.

Presentation

Conduct rapid assessment for every PAC patient to identify if any symptoms of sepsis are present. Signs of sepsis include:

- High fevers with chills/sweats/rigors
- Distended abdomen
- Rebound tenderness
- Foul-smelling discharge

Initial Management

- ❑ Start IV (16-18 gauge needle) or IM broad-spectrum antibiotics, per Liberia's National Standard Therapeutic Guidelines
- ❑ Give IV fluids (at least 2L [NS/RL or Haemaccel] over the first hour): start with 1000cc bolus of IV fluids over the first 15-20 minutes using a large-bore needle (16-18 gauge)
- ❑ Insert indwelling catheter
- ❑ Monitor input/output strictly (amount of IV fluids going in and estimated blood/urine coming out); Monitor urine color (dark/concentrated)
- ❑ If the patient had undergone an unsafe abortion, tetanus may be a concern:
  - ❑ If the patient has been immunized for tetanus previously, give booster injection of **tetanus toxoid (TT)** 0.5 mL IM
  - ❑ If the patient has not been immunized before or if immunization history is unknown, give anti-tetanus serum 1500 units IM, and a booster injection of TT 0.5 mL IM after four weeks

Important Note:
Retained POCs are most often the source of infection in post-abortion patients, so prompt uterine evacuation using MVA will be important.

Continuing Management

If patient does not improve on antibiotics, consider other sources of pelvic or abdominal infection, and if necessary, transfer to a higher-level health facility.

Intra-Abdominal Injury & Uterine Perforation

Intra-abdominal injury is an injury to the abdomen, while uterine perforation is a complication that may be associated with injury to surrounding blood vessels or viscera (bladder, bowel), which can be life threatening if unrecognized and untreated. One common cause of intra-abdominal injury in the post-abortion patient is uterine perforation. Some perforations may be small and the patient may only require prolonged close observation. Other perforations may be large and associated with damage to bowel, bladder and other organs. These large perforations do not close spontaneously, can bleed profusely, and blood can collect intra-abdominally with little to no vaginal bleeding. If left unchecked, these patients will have signs of shock due to rapid intra-abdominal hemorrhage. A ruptured ectopic pregnancy also causes intra-abdominal hemorrhage and is life-threatening.

Presentation

Conduct rapid assessment for every PAC patient to identify if any symptoms of intra-abdominal injury are present. Suspect acute intra-abdominal injury if patient presents with any of the following symptoms:

- Distended abdomen
- Decreased bowel sounds
- Tense/hard abdomen
- Rebound tenderness
- Any peritoneal sign on abdominal exam, along with abdominal pain, fever, shoulder pain, nausea/vomiting

Initial Management

- ❑ Ensure airway is open (ABC)
- ❑ Obtain vital signs
- ❑ Provide pain control
- ❑ Start IV antibiotics
- ❑ Give IV fluids (NS/RL) as appropriate prior to referral to higher-level facility for continuing treatment
- ❑ Collect blood specimens and transfuse blood products if appropriate/available

Continuing Management

Signs of acute abdomen indicate that a patient is a surgical emergency and likely requires urgent laparotomy. Thus, lower level health facilities should stabilize the patient and transport to a higher-level health facility with surgical capacity.

Clinical Assessment: History-Taking, Physical and Pelvic Examination

History-taking

Ensure that a full history is taken. Ensure that you provide the patient with auditory and visual privacy. Take comprehensive information on:

(i) Reason for seeking care
(ii) Biodata
(iii) Obstetric history
(iv) Gynecologic history
(v) Medical history
(vi) Surgical history
(vii) Medications and allergies
(viii) Social history
(ix) Family history

Physical examination

Step 1. Conduct visual inspection of the patient
Step 2. Obtain and record vital signs

(i) Heart rate
(ii) Blood pressure
(iii) Temperature
(iv) Respiration rate

Step 3. Conduct complete physical examination

Pelvic examination

When conducting pelvic examination, remember to always alert the patient before touch. The pelvic exam consists of three components – inspection, speculum exam, and bimanual exam.

Step 1. Perform inspection to examine external genitalia for abnormalities or signs of disease/infection

(i) Any bleeding on the pad or underwear? If present, how much?
(ii) Any odor or abnormal discharge?
(iii) Look at the external and internal labia, and the tissue around the urethral opening
(iv) Any abnormal swelling or bumps around Skene's glands (which drain into the urethra, normally not noticeable)?
(v) Any abnormal swelling or bumps around Bartholin's glands (which lubricate the vagina, normally not noticeable unless inflamed or infected)?

Step 2. Perform speculum exam to examine the cervix and vaginal canal

(i) Look for abnormalities or foreign bodies
(ii) Look for bleeding and characteristics of the bleeding
(iii) Look for signs of infection, such as pus or other discharge from cervical os
    - If present, sample for culture if possible, and administer antibiotics before aspiration
(iv) Perform cervical cytology, if indicated and available

Step 3. Perform bimanual exam to assess the cervix and uterus

3.1 Check how dilated the cervix is. Is there any cervical motion tenderness?

3.2 Check for nodularity, masses, or polyps behind vaginal walls or on the cervix.

3.3 While your vaginal hand is still in place, use your non-dominant hand to feel for the uterine fundus abdominally. Assess the following:

(i) *Uterine size*
- At 12 weeks, the fundus is often at the level of the pubic symphysis
- If the uterine fundus is palpated at the umbilicus, it is roughly 20-week sized

(ii) *Shape*
- Is it round, asymmetric, any palpable fibroids?

(iii) *Position*
- Is it anteverted (tilted forward) or retroverted (tilted backward)?
- Is the uterus lateral (tilted to the left or to the right)?

(iv) *Consistency*
- Is it soft, boggy or firm and contracted?

(v) *Mobility*
- Can you move the uterus gently side to side or up and down?
- Is the uterus free and mobile, or stuck in the pelvis (indicating adhesions)?

(vi) *Tenderness*
- Is the uterus tender throughout on bimanual exam?

Important Note

If you do not know which way the uterus is facing, you can easily perforate the uterus during a MVA or misplace the IUCD during insertion.

If uterine size and position are difficult to feel, it may be that the uterus is immobile, or very retroverted, or the patient is overweight.

Ask a more experienced clinician to help assess the uterine size and position before performing any procedure.

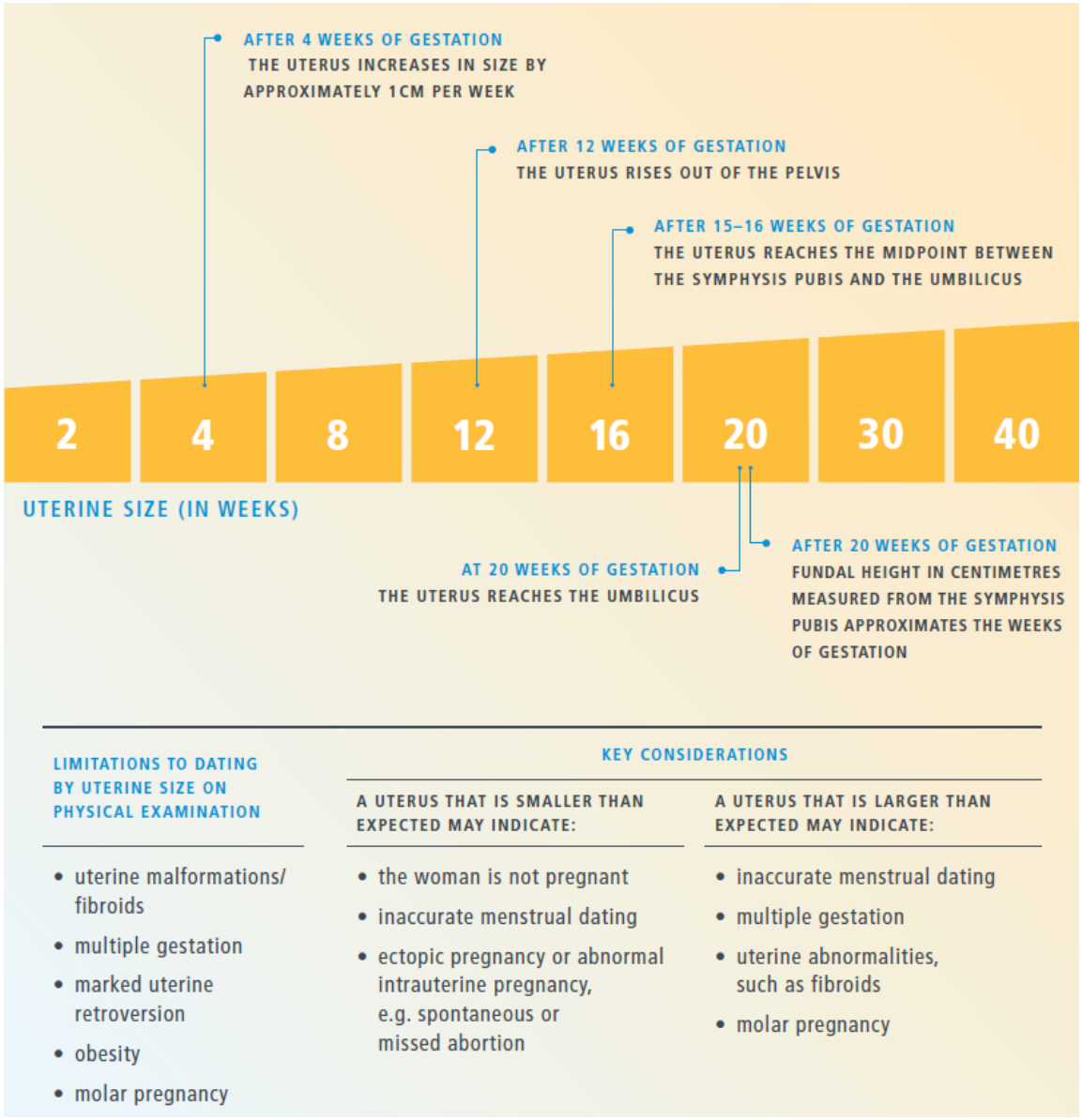
3.4 Feel on either side of the uterus for any masses or tenderness.
- If there are masses palpated on either side, check for the size, shape, consistency (solid or soft), mobility, and tenderness.

Step 4. Estimate the duration of pregnancy (gestational age)

Based on the physical examination, estimate the gestational age of the pregnancy (Figure 8):

- Duration of pregnancy (gestational age) is the size of the uterus—estimated in weeks—based on clinical examination, that corresponds to a pregnant uterus of the same gestational age dated by last menstrual period (LMP) (WHO, 2018).
- If there is any uncertainty or difficulty assessing gestational age, or if there is a discrepancy between uterine size and gestational age, consider having another clinician double-check the exam or consider ultrasound assessment.

Figure 8. WHO 2018 Guide to pregnancy dating by clinical examination



Counseling

Counseling is a focused, time-intensive and interactive dialogue between provider and patient to provide support, information and guidance. Counseling is relevant throughout the entire care process, from emergency treatment, to family planning, to referral for other services.

> **Reminder**
> Counseling is a continuous process, and should be done before, during, and after any procedure.

At the minimum, counseling for PAC clients should include:

- ❑ What she likely will experience (e.g. pain, bleeding) and how long to expect them
- ❑ What pain management options she may choose from
- ❑ Differences between all available methods of uterine evacuation, if applicable
- ❑ How to recognize concerning symptoms, potential complications
- ❑ Where to go if she has concerning symptoms
- ❑ When she can resume normal activities, such as safe intercourse
- ❑ Family planning and contraceptive options
- ❑ Other SRH services
- ❑ Positive health messaging and education
- ❑ Psychosocial and mental health support, with referrals to other facilities or health professionals if needed (refer to the Mental Health Policy and Strategic Plan for Liberia [2016 – 2021])
- ❑ Provide support service such as assisted devices and technologies (e.g. braille) to facilitate counselling of patients with physical or mental disabilities, where available

Furthermore, provider who provide counseling should:

- Communicate information in simple language
- Maintain privacy
- Ensure the patient is comfortable
  - Patients have the right to change providers if they so choose
- Ensure the patient receives adequate responses to their questions and needs
- Avoid imposing personal values and beliefs
- Consider patient's religious or cultural beliefs
- Provide options for follow-up care with PAC clients

See sections below for more information on specific types of counseling (e.g. pain management; family planning).

Pain Management

All patients should be offered appropriate pain management as part of comprehensive abortion care. Pain management options available to the patient should be disclosed during pre-procedure counseling, and should be considered during any medical procedure as well as during post-procedure counseling.

Source and severity of the pain will vary between individual patients, and both pharmacological and non-pharmacological methods for management should be considered and used as appropriate to the patient's needs (Table 6) (Ipas, 2013; WHO, 2014). Attention must be paid to a patient's medical history, allergies, and concurrent use of medications that might interact with analgesic or anesthetic agents. In addition to physical pain, providers must also consider psychological responses such as anxiety, fear, and other emotional stress experienced by the patient, which can also increase sensitivity to pain.

Table 6. Guide to pain management

<table>
<tr><th></th><th>Surgical uterine evacuation</th><th>Medical uterine evacuation</th></tr>
<tr><td rowspan="2">Pharmacological methods*</td><td>• Local anesthetics e.g. paracervical block using lidocaine
• Other methods as recommended by the most up-to-date Liberia National Standard Therapeutic Guidelines</td><td>• For side-effects of misoprostol, adjuvant medications may also be provided if indicated, e.g. loperamide for diarrhea
• For cases of >12 weeks' gestation, offer epidural anesthesia in addition to NSAIDs</td></tr>
<tr><td colspan="2">• Analgesics such as NSAIDS, e.g. ibuprofen 400-800 mg**
• Anxiolytics/sedatives e.g. diazepam 5-10 mg</td></tr>
<tr><td>Non-pharmacological methods</td><td colspan="2">• Gentle, non-judgmental, respectful interaction and communication
• Verbal support and assurance
• Encourage patient to relax and breathe deeply
• Listening to music (e.g. hymns)
• Presence of a supporting person to remain with patient (if patient desires it)
• Hot water bottle or heating pad
• Explaining to the patient what to expect from the clinical procedure could help reduce patient's sensitivity and anxiety</td></tr>
</table>

**To ensure that oral medications will be most effective at the time of the procedure, administer them 30-45 minutes before the procedure.*
***Paracetamol is not recommended to decrease pain during abortion/PAC; it is used as an antipyretic drug for fever*

General anesthesia is not routinely recommended for MVA or D&E (WHO, 2014). Medications used for general anesthesia are one of the few potentially life-threatening aspects of abortion care. Any facility that offers general anesthesia must have the specialized equipment and staff to administer it and to handle complications.

Uterine Evacuation Methods for Post-Abortion Care

Post-abortion patients with a missed abortion, incomplete abortion, or retained POC may be managed using either medical uterine evacuation (using misoprostol) or surgical uterine evacuation (using MVA, D&E). Patient criteria, as well as commodities and equipment availability at the facility should be reviewed to determine whether medical or surgical uterine evacuation is more appropriate (Table 7). Also see *Appendix 3: Decision Flowchart for Uterine Evacuation Methods.*

Table 7. Comparison of uterine evacuation methods for PAC

	Misoprostol	MVA
Incomplete abortion, gestation < 13 weeks	Yes	Yes
Incomplete abortion, gestation ≥ 13 weeks	Yes	Yes (as part of D&E, which may require more specialized instruments and more experienced clinicians)
Missed abortion / Inevitable abortion (< 13 weeks)	Yes	Yes
Missed abortion / Inevitable abortion (≥ 13 weeks)	Yes	Yes (as part of D&E, which may require more specialized instruments and more experienced clinicians)
Effectiveness	91-99% *(note that this is for PAC cases, not for induced abortion; effectiveness of these methods for induced abortion is found in Table 3 above)*	98-100%
Advantages	• Non-invasive method • Low infection risk • No risk of uterine perforation or trauma to proximal structures	• No absolute contraindications (however in gestational age ≥ 13 weeks, may require more specialized instruments and more experienced clinicians) • IUCD can be inserted at the same time, at the end of the procedure, if client has chosen the method • Can be used in an unstable patient
Disadvantages	• Heavy bleeding and cramping • Bleeding often lasts longer than after MVA • Side effects such as nausea/vomiting • If uterine evacuation is incomplete, may need MVA	• Invasive method • Facility must have available and sterile equipment • Procedure can be painful • (Low) risk of uterine perforation or cervical laceration • Antibiotic prophylaxis required

Important Note

Ectopic pregnancies occur when the pregnancy implants outside of the uterine cavity. **Neither misoprostol nor MVA will end or treat an ectopic pregnancy.** The patient should be referred to a higher level facility for a suspected or diagnosed ectopic pregnancy.

Medical uterine evacuation for PAC

Medical uterine evacuation is the use of medication such as misoprostol to evacuate the uterus. Misoprostol is a safe, effective, and acceptable method to achieve uterine evacuation for women needing post-abortion care.

Step 1. Determine if the patient is eligible for medical uterine evacuation

Note that certain PAC patients may be ineligible for medical uterine evacuation; e.g. if the patient presents with any of the following conditions:

(i) Unstable patients
- They need rapid uterine evacuation (MVA or D&E procedure); misoprostol will not work fast enough to clear the uterine contents

(ii) Patients with coagulation disorders
- Use of MVA procedure is preferred

(iii) Patients with previous allergic reaction to misoprostol
- Ask about severity of reaction (benign skin rash versus life-threatening throat swelling) and consider MVA over medical evacuation

(iv) Patients with suspected or diagnosed ectopic pregnancy
- Misoprostol will not resolve the ectopic pregnancy
- Surgical intervention recommended; patient should be referred to higher-level facility with capacity for surgical procedures

(v) Patients with molar pregnancy
- Surgical intervention recommended; patient should be referred to higher-level facility with capacity for surgical procedures

(vi) Patients with severe anemia
- Surgical evacuation may be a better option because it may decrease the amount of bleeding the patient experiences

> Important Note
> Misoprostol is not advised in cases where delayed uterine evacuation could add significant risk to the patient. In such cases, MVA is the preferred method of management.

Step 2. Determine gestational age

Conduct physical examination and pelvic examination to determine gestational age, if not already done. Use ultrasound if available. *See Clinical Assessment: History-Taking, Physical and Pelvic Examination section, p.41-43 for details.*

Step 3. Conduct pre-procedure counseling

3.1 Counsel the patient that she may experience the following after medical uterine evacuation:

(i) Cramping and bleeding, which normally lasts for a few days
- Intense cramps 1-3 hours after using misoprostol
- The heaviest bleeding occurs 2-5 hours after using misoprostol (will pass blood clots, some tissues); this usually slows down within 24 hours and should not exceed 48 hours

(ii) Nausea, diarrhea, and a fever that should not persist for more than 24 hours after taking the medication

(iii) Shaking and shivering may take place for 30 minutes to 1 hour
- This typically presents 30 minutes after administration of the drug

3.2 Counsel the patient on her family planning options. This can and should also be done post-procedure.

See Post-Abortion Family Planning section below for details.

Step 4. Administer misoprostol

Administer misoprostol based on gestational age and type of abortion, based on the regimens below (Table 8) (Ipas, 2013; 2018b; FIGO, 2017; WHO, 2018). Additional information on different routes of misoprostol administration is in Table 9.

Table 8. Regimen for uterine evacuation during PAC using misoprostol

Type of abortion	Gestation < 13 weeks	Gestation ≥ 13 weeks
Incomplete abortion	• 600 mcg orally OR • 400 mcg sublingually	• 400 mcg buccally, vaginally, or sublingually, every 3 hours
Missed abortion / Inevitable abortion	• 800 mcg vaginally OR • 600 mcg sublingually (every three hours for a maximum of 3 doses [i.e. total 1800mcg])	• 200 mcg buccally, vaginally, sublingual (every 6 hours) (for gestation 13-26 weeks)

Table 9. Instructions & side-effects of different routes of misoprostol administration

Route of administration	How to administer	Side-effects
Oral (PO)	• Swallow by mouth	Fever/chills, diarrhea, nausea
Buccal (B)	• Place 2 pills between each cheek and gum (4 pills total) • After 30 minutes, swallow any remaining pill fragments	More fever/chills than vaginal route
Sublingual (SL) *Fastest onset of action*	• Place four pills under tongue • After 30 minutes, swallow any remaining pill fragments	More fever/chills, diarrhea, vomiting than vaginal route
Vaginal (PV)	• Empty bladder • Place the pills as high in vagina as possible (posterior fornix) • Lie down for 30 minutes to allow absorption • Pills may not dissolve completely (fragments may fall out or be seen for many hours) and that is normal	Avoid if bleeding and/or signs of infection; otherwise least side-effects

Antibiotic prophylaxis

Per Liberia's Standard Therapeutic Guidelines, patients receiving misoprostol for management of bleeding from spontaneous or induced abortion should also receive antibiotic prophylaxis. The following regimens are equally acceptable (depending on what is available):

- ❑ Amoxicillin 500 mg PO every 8 hours x 7 days; OR
- ❑ Doxycycline 100 mg PO every 12 hours x 7 days PLUS Metronidazole 500 mg PO every 8 hours x 7 days

Step 5. Manage side-effects

5.1 Medication for pain management should always be offered without delay for patients who want it.

5.2 Medication for fever management should also be administered when needed

- If fever persists for many hours after the last misoprostol dose, patient should be evaluated for possible infection

Step 6. Conduct post-procedure counseling

6.1 Counsel the patient on normal and expected symptoms:
- (i) Cramping and bleeding are expected and normal, and often lasts for a few days
- (ii) The heaviest bleeding occurs 2-5 hours after using misoprostol; this usually slows down within 24 hours and should not exceed 48 hours
- (iii) Patient should not put anything in vagina (i.e. no intercourse, no tampons, etc.) until vaginal bleeding has stopped
- (iv) Patient should continue with routine hygiene (avoid sitting in pools/baths, no flushing water up into vagina)
- (v) Misoprostol may cause nausea, diarrhea, and a fever/chills that should not persist for more than 24 hours after taking the medication

6.2 Counsel the patient that she can manage side-effects via the following:
- (i) Use hot water bottle or hot towel, or take pain medications such as ibuprofen for cramping
  - Take NSAIDs (e.g. ibuprofen) 600-800 mg every 4-6 hours after using misoprostol
- (ii) Wear pads as long as she is having bleeding

6.3 Counsel the patient to return immediately to a health facility if she experiences the following:
- (i) Severe vaginal bleeding (>4 soaked pads total over 2 continuous hours), especially if having dizziness, lightheadedness, fatigue
- (ii) Fevers, chills, nausea, or vomiting
- (iii) Severe abdominal pain
- (iv) Foul smelling vaginal discharge

6.4 Counsel the patient that her menstrual periods will resume within 4-8 weeks, but fertility may return sooner (ovulation can occur as early as 2 weeks post-abortion).

6.5 Counsel the patient on her family planning options *(See Post-Abortion Family Planning section below for details)*:
- (i) If patient has already opted for a family planning method, provide the method and provide method-specific counseling on its use, side-effects, etc.
- (ii) If patient has not opted for a family planning method, counsel on the wide range of family planning methods available based on her reproductive goals and health condition

6.6 Counsel the patient on other SRH needs she may have and offer the appropriate services (or make referrals) including, but not limited to:
- (i) STI screening, management and counseling (including contact-tracing)
- (ii) HIV counseling, testing, treatment and/or referral
- (iii) Screening, management and/or referral for confirmed or suspected gynecological pathologies (e.g. cervical cancer)
- (iv) Response to other concerns such as fertility, SGBV, FGM
- (v) General SRH education and information

Surgical uterine evacuation for PAC

Surgical uterine evacuation is the use of surgical means to evacuate the uterus, either via manual vacuum aspiration (MVA), dilatation and evacuation (D&E), or dilation and curettage (D&C). However, D&C is an obsolete technique, and **all possible efforts should be made to replace D&C with MVA** where appropriate to improve the safety and quality of care for women (WHO, 2012):

(i) MVA is the preferred method of surgical uterine evacuation for gestational age up to 12 weeks; it is a safe, effective, and low-cost method. It can be used to manage missed abortions, incomplete abortions, or uterine bleeding from retained POCs.

(ii) D&E should be used for surgical uterine evacuation after 12-14 weeks. The D&E procedure requires preparation of the cervix and evacuating the uterus with a combination of vacuum aspiration/MVA (using 12-16mm diameter cannulae) and long uterine evacuation forceps. It requires more specialized instruments, use of paracervical block, and more intensive clinical care than aspiration in early pregnancy.

MVA (gestational age < 13 weeks)

This section describes the MVA procedure with examples using the Ipas MVA Plus® aspirator and the Ipas EasyGrip® cannulae.

Step 1. Determine if the patient is eligible for MVA procedure

There are no absolute contraindications for use of MVA. However, any serious medical conditions that are present (e.g. shock, hemorrhage, cervical/pelvic infection, perforation or abdominal injury) should be addressed immediately.

Step 2. Determine gestational age

Take history, conduct physical examination and pelvic examination to determine gestational age, size and position of the uterus, if not already done. Use ultrasound if available. *See Clinical Assessment: History-Taking, Physical and Pelvic Examination section, p.41-43 for details.*

Step 3. Conduct pre-procedure counseling

3.1 Confirm that the patient has emptied her bladder. Place the patient in the lithotomy position.

3.2 Walk the patient through the steps of the procedure.

3.3 Review some of the post-procedure counseling, since patient may not remember all of the details if she is feeling pain after the procedure; this includes information on:

(i) What symptoms are normal and expected after MVA procedure

- ❑ Vaginal bleeding, which may come and go, for days to several weeks; bleeding may be as heavy as a period for the first week
- ❑ Menses should return within 6 weeks
- ❑ Cramping, which is usually improved with pain medication such as NSAIDs
- ❑ Patient can return to her regular activities as soon as she feels ready to do so

(ii) Warning signs of complications after MVA procedure that requires immediate return to a health facility

- ❑ Severe vaginal bleeding (> 4 soaked pads total over 2 continuous hours)
- ❑ Fevers, chills, weakness/dizziness, nausea, or vomiting
- ❑ Severe abdominal pain
- ❑ Foul smelling vaginal discharge

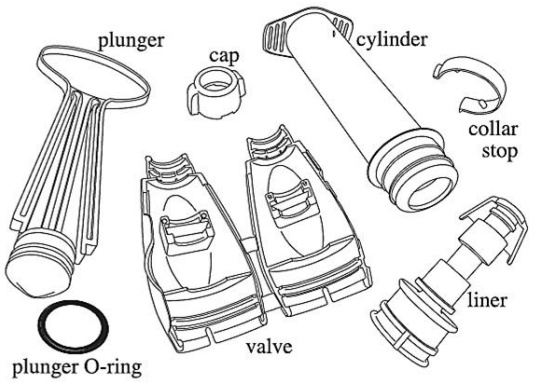
3.4 Counsel the patient on her family planning options. This can and should also be done post-procedure. *See Post-Abortion Family Planning section below for details.*

Step 4. Prepare the MVA set

4.1 Inspect MVA and cannulae to ensure:

(i) All MVA parts are available:

- ❑ Cap
- ❑ Valve
- ❑ Valve liner
- ❑ Plunger O-ring
- ❑ Collar stop
- ❑ Cylinder
- ❑ Plunger
- ❑ Dilators if needed



(ii) Appropriate suction cannulae for different uterine sizes are available:

- ❑ 4-7 mm cannula → to be used for uterine size 4-6 weeks
- ❑ 5-10 mm cannula → to be used for uterine size 7-9 weeks
- ❑ 8-12 mm cannula → to be used for uterine size 9-12 weeks

(iii) Device parts are correctly sterilized or has gone through high-level disinfection (HLD).

(iv) Device parts are intact, i.e. not frayed or broken, brittle or cracked.

See Appendix 4 for detailed diagrams on MVA components.

4.2 Ensure all other equipment and commodities needed for MVA procedure are available and prepared *(see Appendix 2)*.

Step 5. Perform MVA procedure

Standard precautions apply during the MVA procedure. Providers must:

- Always wash hands immediately before and after any exams, procedures, or contact with any potentially contaminated items or bodily fluids
- Always wear gloves
- Use the "no-touch" technique
- Use personal protective equipment (PPE) such as gowns, facemask, since there can be splashing and traveling of bodily fluids such as blood

The No-Touch Technique

Portion of the MVA device that enters the uterine cavity must remain sterile throughout the procedure. This portion should not touch provider's gloved hands, patient's skin or vaginal walls, or unsterile parts of the instrument tray before entering the cervix.

Antibiotic prophylaxis

Prophylactic antibiotics should be administered when possible. Appropriate oral prophylactic antibiotic regimens include:

- ❑ Doxycycline 100 mg before the procedure (up to 12 hours prior) AND 200 mg afterwards; OR
- ❑ Doxycycline 200 mg before the procedure (up to 12 hours prior); OR
- ❑ Azithromycin 500 to 1000 mg before the procedure (up to 12 hours prior); OR
- ❑ Metronidazole 1 g before the procedure (up to 12 hours prior)

5.1 Don/wear clean gloves.

5.2 Assemble the MVA for aspiration:

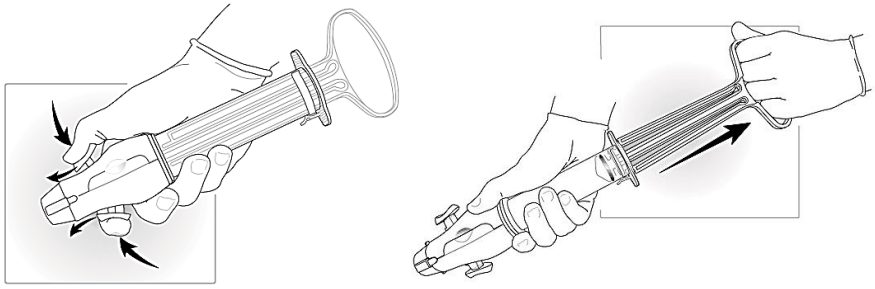
(i) Assemble the liner into the valve so it snaps shut with the cap on.

(ii) Place the O ring around the plunger, which goes inside the cylinder.

(iii) Place the cylinder and plunger inside the valve.

(iv) Wrap the collar stop around the base of the cylinder.

(v) Push the buttons on the valve to lock into place; then pull the plunger slowly out of the cylinder to generate the vacuum and lock it in.



- Always check to make sure the vacuum is present; if you release the buttons, you should hear a rush of air
- If not, ensure that all pieces of device are in place and not broken; replace if necessary

5.3 Explain to the patient that the procedure will begin.

5.4 Drape the patient's perineum properly for the procedure.

5.5 Ensure there is a good light source in the room or from a head-lamp.

5.6 Apply antiseptic solution at least 2-3 times to perineum, vaginal walls, and cervix using sterile ringed forceps or clamp with gauze.

5.7 Insert the vaginal speculum and locate the cervix, and clamp the cervix with tenaculum.

- Can perform a paracervical block if this MVA procedure is performed in higher-level facilities staffed with a physician and means to handle potential complications from paracervical block (e.g. availability of defibrillator, capacity to perform CPR) *(See p. 60 for paracervical block procedure)*.

5.8 Sound the uterus.

5.9 Select appropriate cannula.

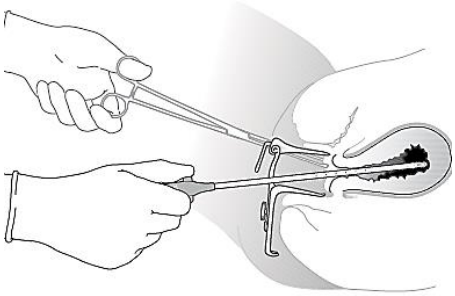
- If cervix allows a cannula of the appropriate size, dilation is not necessary
- Usually women with an incomplete abortion will already have an adequately dilated cervix.

Reminder

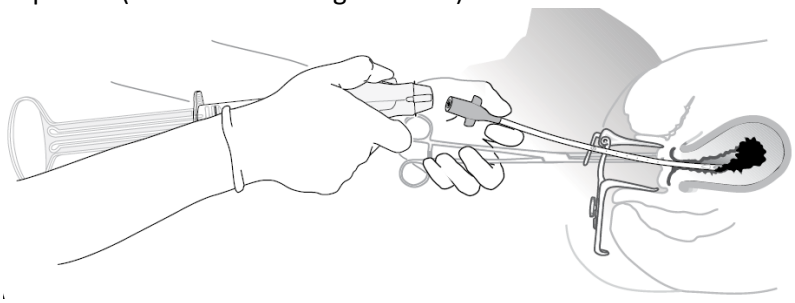
- If uterine size 4-6 weeks, use 4-7 mm cannula
- If uterine size 7-9 weeks, use 5-10 mm cannula
- If uterine size 9-12 weeks, use 8-12 mm cannula

5.10 Gently guide the cannula through the cervix while holding the tenaculum or clamp on the upper lip of the cervix for continuous gentle counter-traction.

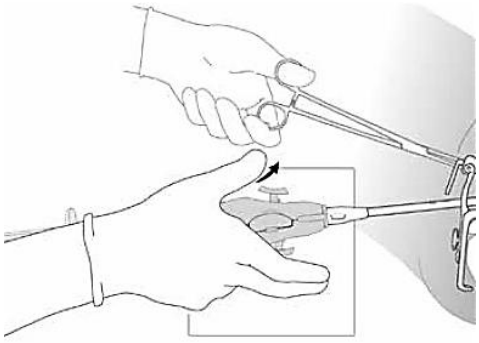
5.11 Remember the uterine size and **insert the cannula** until it is in the upper portion of the uterus. There are centimeter markings on the cannula that can guide you how far you should insert.



5.12 Attach the charged aspirator (i.e. with vacuum generated) to the cannula.



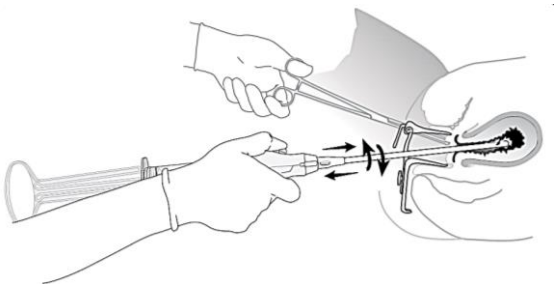
5.13 Initiate suction by releasing the two buttons on the aspirator.



5.14 Holding the MVA by its cylinder/clear barrel, evacuate contents by gently **rotating the cannula in circular motion while using an in-and-out motion**. As you rotate, pull back slowly in and out while keeping top third of the cannula inside the uterus.

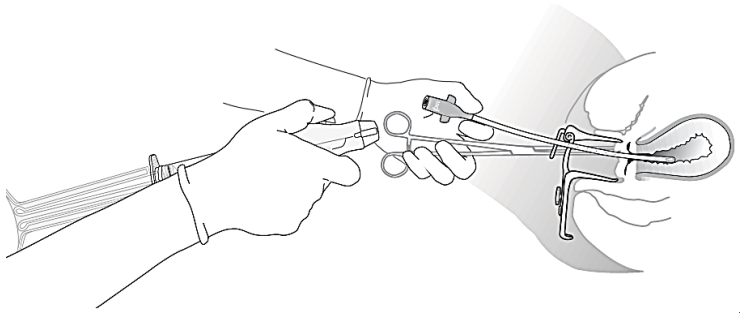
- As the uterus contracts, you will feel the uterine walls become firm around the cannula
- Make sure not to withdraw the tip of the cannula outside of the cervix, otherwise you will lose vacuum suction

See Appendix 5 for solutions to troubleshoot loss of suction during the MVA procedure.



5.15 Once the MVA aspirator becomes full, you will no longer have adequate vacuum for suction. You can leave the cannula in place, then detach the aspirator from the cannula tip, empty the aspirator, and re-establish vacuum.

- Contents and tissues from the evacuation should be emptied into a basin/gallipot so they can be inspected later



5.16 Repeat the procedure until the uterus is empty.

- When the uterus has been adequately evacuated, you should:
  - Feel gritty sensation as cannula passes along surface of an evacuated uterus
  - See pink/red foam in cannula (little to no blood or tissue passing through)
  - Sense uterine walls closing around cannula

5.17 Remove the device and clamps, and make sure that bleeding from uterus and cervix is minimal.

5.18 The patient has the right to see the contents of evacuation, if she wants to.

Uterine perforation during MVA

Very rarely, uterine perforation may occur during an MVA procedure. Key signs that may indicate a perforation include:

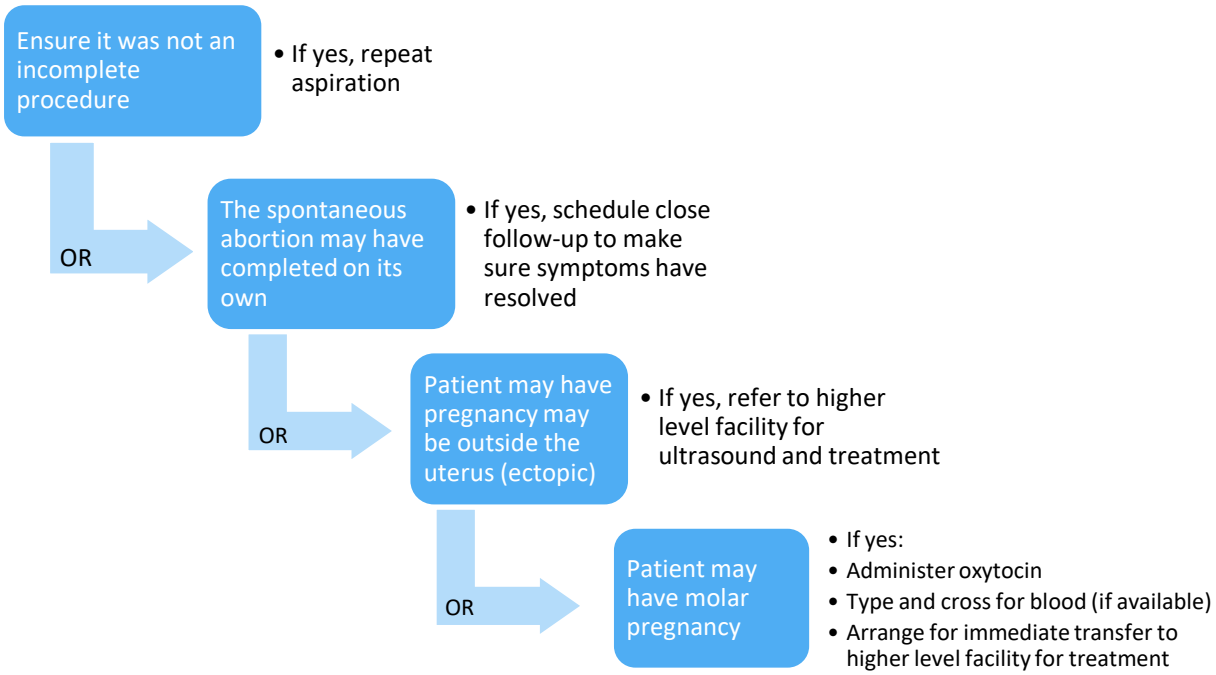
- ❑ Excessive bleeding after uterine evacuation
- ❑ Vacuum suction decreases or is lost even though cannula is well inside uterus and is not clogged
- ❑ Cannula and/or cervical dilator penetrates beyond the expected size of uterus
- ❑ Fat or bowel found in aspirated tissue during or after MVA procedure

If uterine perforation occurs during MVA and the patient is stable and asymptomatic with no bleeding, the tear is usually small and often may not require laparotomy to repair. If the perforation is more serious, manage based on procedures described in *Intra-Abdominal Injury & Uterine Perforation (p.40).*

Step 6. Examine tissue to ensure evacuation is complete

Inspect the tissues that have been evacuated. Conduct further assessment and procedure if no POC is seen (Figure 9).

Figure 9. Steps if no POC is seen after MVA procedure



Step 7. Complete any concurrent procedures

Complete procedures such as IUCD insertion, if patient has already opted for this as her contraceptive choice.

Step 8. Manage side-effects

Medication for pain management should always be offered without delay for patients.

Step 9. Conduct post-procedure counseling

9.1 Counsel the patient on normal and expected symptoms after MVA procedure:

(i) Cramping is normal and expected; patient can take ibuprofen if needed
(ii) Bleeding is normal and expected
(iii) Patient should not put anything in the vagina (no intercourse, no tampons, etc.) until vaginal bleeding has stopped
(iv) Patient should continue with routine hygiene (avoid sitting in pools, avoid cleaning inside)

9.2 Counsel the patient to return immediately to a health facility if she experiences the following:

(i) Severe vaginal bleeding (> 4 soaked pads total over 2 continuous hours)
(ii) Fevers, chills, weakness/dizziness, nausea, or vomiting
(iii) Severe abdominal pain
(iv) Foul smelling vaginal discharge

9.3 Counsel the patient that her menstrual periods will resume within 4-8 weeks, but fertility may return sooner (ovulation can occur as early as 2-weeks post-abortion).

9.4 Counsel the patient on her family planning options *(see Post-Abortion Family Planning section below for details)*:

(i) If patient has already opted for a family planning method, provide the method and provide method-specific counseling on its use, side-effects, etc.

(ii) If patient has not opted for a family planning method, counsel on the wide range of family planning methods available based on her reproductive goals and health condition

9.5 Counsel the patient on other SRH needs she may have and offer the appropriate services (or make referrals) including, but not limited to:

(i) STI screening, management and counseling (including contact-tracing)

(ii) HIV counseling, testing, treatment and/or referral

(iii) Screening, management and/or referral for confirmed or suspected gynecological pathologies (e.g. cervical cancer)

(iv) Response to other concerns such as fertility, SGBV, FGM

(v) General SRH education and information

For a high-level overview of the MVA procedure, see Appendix 6 for an example using the Ipas MVA Plus®.

Step 10. Clean and sterilize MVA and cannulae

MVA devices and cannulae must be cleaned, and HLD or sterilized after each patient (Ipas, 2019). Always wear gloves when handling dirty instruments, and other relevant IPC practices as outlined in the most current national IPC guidance[6] must be followed.

10.1 Disassemble the MVA:

(i) Remove the cannula from the valve – twist the cannula base and pull it out of the valve; **do not attempt to remove the base of the cannula; it is permanently attached**

(ii) Pull the cylinder out of the valve

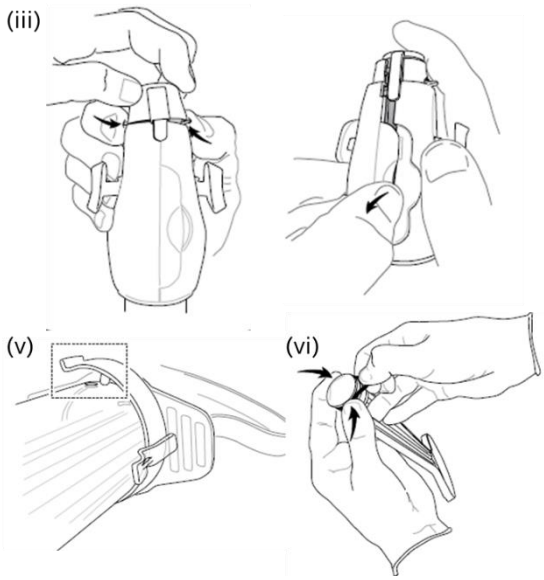
(iii) Release tabs and pull off the cap, then open the valve by opening the side clasp

(iv) Remove the liner

(v) Remove the collar stop from the cylinder and pull the plunger completely out of the cylinder

(vi) Pull the O-ring from its groove on the plunger

See Appendix 4 for detailed diagrams on MVA components.



[6] At the time of validation, this is the National Infection Prevention and Control Guidelines (2018)

10.2 Clean, decontaminate, and sterilize the MVA:

(i) Place MVA in clean water immediately after the procedure
- Keep the MVA wet if possible until the next step can be carried out; tissue and blood is much more difficult to remove once dried on the device

(ii) Clean the MVA with soap and water to remove any visible blood or tissue before decontamination *(Appendix 7)*

(iii) Place the disassembled parts in a **0.5% Clorox (bleach) solution** *(Appendix 8)* for 5-10 minutes to decontaminate

(iv) Rinse with clean water
- If not ready to proceed to sterilization or HLD, keep the MVA soaked in clean water

(v) Follow the manufacturer's instructions for sterilization or HLD *(Appendix 7 shows instructions for cleaning and sterilization/HLD, using the Ipas MVA Plus® aspirator and the Ipas EasyGrip® cannulae as examples)*

Use of 0.5% Clorox (Bleach) Solution
If you are using 0.5% Clorox (bleach) for decontamination and/or HLD, do not leave MVA soaking in the solution for more than 20-30 minutes.

D&E (gestational age ≥ 13 weeks)

Dilatation and evacuation (D&E) is the safest and most effective surgical uterine evacuation for gestational age after 12-14 weeks (and less than 24 weeks) of pregnancy (WHO, 2012; Ipas, 2018a). This procedure requires preparation of the cervix and evacuating the uterus with a combination of vacuum aspiration/MVA (using 12-16mm diameter cannulae) and long uterine evacuation forceps. It requires more specialized instruments, use of paracervical block, and more intensive clinical care than aspiration in early pregnancy. Thus, D&E should be performed in higher-level facilities staffed with a physician and means to handle potential complications from a paracervical block procedure (e.g. availability of defibrillator, capacity to perform CPR). If D&E is to be performed, follow the clinical guidance below.

Step 1. Determine if the patient is eligible for D&E procedure

D&E procedures should be used for gestation age 12-14 weeks (and less than 24 weeks). There are no absolute contraindications for use of MVA. However, any serious medical conditions that are present (e.g. shock, hemorrhage, cervical/pelvic infection, perforation or abdominal injury) should be addressed immediately.

Step 2. Determine gestational age

Take history, conduct physical examination and pelvic examination to determine gestational age, size and position of the uterus, if not already done. Use ultrasound if available. *See Clinical Assessment: History-Taking, Physical and Pelvic Examination section, p.41-43 for details.*

Important Note

Cervical preparation or the D&E should not be initiated until the gestational age and/or uterine size has been confirmed. Errors in dating can lead to serious problems with second-trimester abortion.

When women or providers are unsure of the gestational age, assume the pregnancy is more, rather than less, advanced.

Step 3. Conduct pre-procedure counseling

3.1 Confirm that the patient has emptied her bladder. Place the patient in the lithotomy position.

3.2 Walk the patient through the steps of the procedure.

3.3 Review some of the post-procedure counseling, since patient may not remember all of the details if she is feeling pain after the procedure; this includes information on:

(i) What symptoms are normal and expected after D&E procedure

- ❑ Vaginal bleeding, which may come and go, for days to several weeks; bleeding may be as heavy as a period for the first week
- ❑ Menses should return within 6 weeks
- ❑ Cramping, which is usually improved with pain medication such as NSAIDs
- ❑ Patient can return to her regular activities as soon as she feels ready to do so

(ii) Warning signs of complications after D&E procedure that requires immediate return to a health facility

- ❑ Severe vaginal bleeding (> 4 soaked pads total over 2 continuous hours)
- ❑ Fevers, chills, weakness/dizziness, nausea, or vomiting
- ❑ Severe abdominal pain
- ❑ Foul smelling vaginal discharge

3.4 Counsel the patient on her family planning options. This can and should also be done post-procedure. *See Post-Abortion Family Planning section below for details.*

Step 4. Prepare D&E equipment and supplies

Ensure all equipment and commodities needed for D&E procedure are available and prepared *(see Appendix 2)*.

Step 5. Perform D&E procedure

Standard precautions apply during the D&E procedure. Providers must:

- Always wash hands immediately before and after any exams, procedures, or contact with any potentially contaminated items or bodily fluids
- Always wear gloves
- Use the "no-touch" technique
- Use personal protective equipment (PPE) such as gowns, facemask, since there can be splashing and traveling of bodily fluids such as blood

The No-Touch Technique

Portion of the MVA device that enters the uterine cavity must remain sterile throughout the procedure. This portion should not touch provider's gloved hands, patient's skin or vaginal walls, or unsterile parts of the instrument tray before entering the cervix.

Antibiotic prophylaxis

Prophylactic antibiotics should be administered when possible. Appropriate oral prophylactic antibiotic regimens include:

- ❑ Doxycycline 100 mg before the procedure (up to 12 hours prior) AND 200 mg afterwards; OR
- ❑ Doxycycline 200 mg before the procedure (up to 12 hours prior); OR
- ❑ Azithromycin 500 to 1000 mg before the procedure (up to 12 hours prior); OR
- ❑ Metronidazole 1 g before the procedure (up to 12 hours prior)

5.1 Don/wear clean gloves.

5.2 Prepare the cervix by administering either:

(i) Misoprostol 400 mcg vaginally or buccally, 3-4 hours pre-procedure; OR
(ii) Misoprostol 400 mcg sublingually, 1-3 hours pre-procedure; OR
(iii) Mifepristone 200 mg orally, 1-2 days pre-procedure

5.3 Monitor the patient during wait time

(i) Provide pain medication as appropriate
(ii) If a woman undergoing cervical preparation begins experiencing moderate/severe cramping and/or heavy vaginal bleeding, it may mean she is ready to undergo evacuation, even if it has not been 3-4 hours.

5.4 Explain to the patient that the D&E procedure will begin.

5.5 Drape the patient's perineum properly for the procedure.

5.6 Ensure there is a good light source in the room or from a head-lamp.

5.7 Apply antiseptic solution at least 2-3 times to perineum, vaginal walls, and cervix using sterile ringed forceps or clamp with gauze.

Paracervical block

5.8 Perform paracervical block for pain management (if the facility does not have the equipment and staff to do this, the patient must be referred to another facility as appropriate):

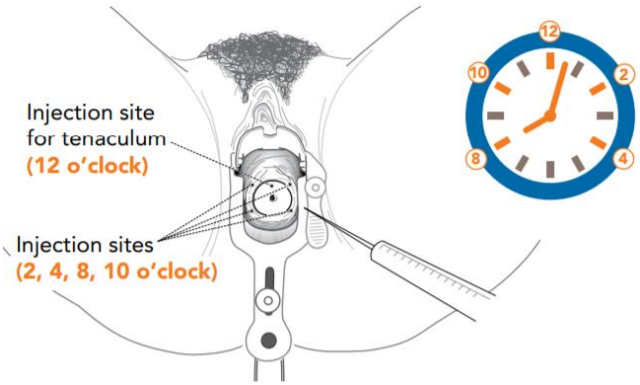
(i) Prepare lidocaine – use 20mL of 1% lidocaine OR 10mL of 2% lidocaine

(ii) Attach needle to syringe – use 3cm (1 inch) needle

(iii) Place speculum and perform cervical antiseptic prep

(iv) Inject small amount of lidocaine superficially into anterior lip of cervix, at the site where the tenaculum will be placed (i.e. 12 o'clock position) (Figure 10)
- ❑ Inject 2mL if using 20mL of 1% lidocaine OR Inject 1mL if using 10mL of 2% lidocaine

Figure 10. Injection sites for paracervical block



(v) Grasp cervix with tenaculum at 12 o'clock position

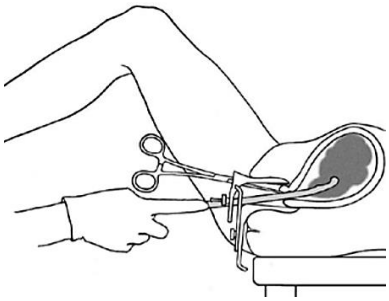
(vi) Inject remaining lidocaine in equal amounts at the cervicovaginal junction, at 2, 4, 8 and 10 o'clock positions (Figure 10) (Ipas, 2018)
- First push needle superficially only 3-5mm deep into the cervix, and pull back to make sure you are NOT in a blood vessel
- Then injections should be 3 cm (1 inch) deep
- Always ensure you are not in a blood vessel
- Where available and providers have been trained to do so, sodium bicarbonate may be added to the paracervical block (1mL of 8.4% sodium bicarbonate for every 10mL of anesthetic solution)

Important Note for Paracervical Block

- Do not exceed maximum dose of 4.5mg/kg or 200mg total lidocaine
  - *If using 1% lidocaine, should not exceed 20 mL*
  - *If using 2% lidocaine, should not exceed 10mL*
- Aspirate before injecting to prevent intravascular injection; possible side-effects seen with intravascular injection include peri-oral tingling, tinnitus, metallic taste, dizziness or irregular/slow pulse, heart block, and may result in death
- If paracervical injection is placed correctly, you can see swelling and blanching of the tissue

5.9 Assemble the MVA for aspiration *(follow MVA assembly steps on p.52)*, and check again to ensure all other equipment and commodities needed for D&E procedure are available and prepared *(see Appendix 2)*.

5.10 Once cervix has been adequately dilated, place tenaculum.

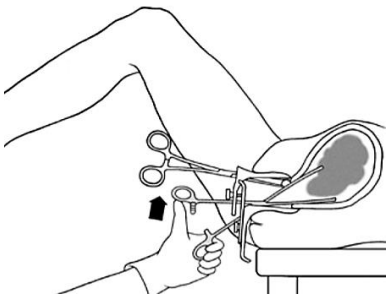


5.11 Insert appropriate size cannulae (depending on gestational age) through cervix into the uterine cavity.

5.12 Perform uterine aspiration with largest cannula available (12-16-mm) and aspirate the amniotic fluid using MVA *(follow standard considerations and procedures for MVA use, p.51-55)*.

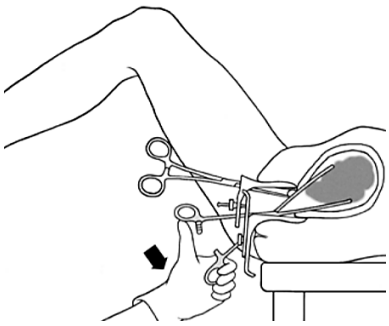
When nothing more can be suctioned, remove cannula from uterus. Follow the steps below to remove tissue using specialized uterine evacuation forceps:

5.13 Maintain gentle traction on the tenaculum, and pass the closed forceps through the cervix in a vertical direction (forceps should open in an up-down direction, not horizontally).



5.14 With the palm of the forceps-holding hand facing the wall (not floor or ceiling), as soon as the forceps pass through the internal os, gently open it as wide as possible.

5.15 While opening the forceps, drop your hand and forceps in the direction of the floor, angling the forceps' tips into the anterior lower segment of the uterus.

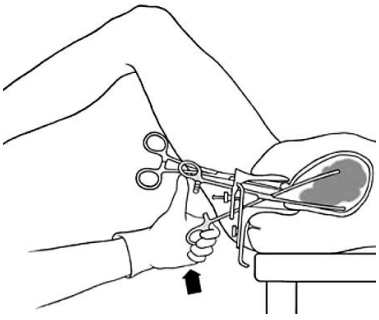


5.16 Evacuate the tissue – close forceps around the fetal tissue and rotate it 90° to help with disarticulation before withdrawing.

- Be careful not to grasp the myometrium
- Avoid excessive traction against the internal os by re-grasping the tissue to reduce its bulk size
- Keep forceps within lower to mid-uterine segment

5.17 Remove tissue with each pass of the forceps.

- If tissue has moved upwards to fundus from lower uterine segment:
  - Use suction to bring tissue down within grasp of forceps; <u>OR</u>
  - Remove speculum and tenaculum and massage the uterus
- In the unlikely event that the above actions do not bring tissue within reach of the forceps:
  - Administer misoprostol 400 mcg buccal <u>OR</u> high-dose oxytocin (200 units in 500 mL NS/LR, run at 50Ml/hour IV)
  - Re-attempt D&E in 30 minutes to 3 hours



5.18 When all fetal tissues are removed, perform suction aspiration to ensure no tissues are remaining.

Step 6. Examine fetal tissue to ensure evacuation is complete
Identify fetal parts (thorax, spine, calvarium, all 4 extremities and placenta, for procedures ≥ 14 weeks). If unclear whether evacuation is complete, confirm with ultrasound or a digital exam of the uterine cavity.

Step 7. Complete any concurrent procedures
Complete procedures such as IUCD insertion, if patient has already opted for this as her contraceptive choice.

Step 8. Manage side-effects
Medication for pain management should always be offered without delay for patients.

Step 9. Allow the patient to stay at the facility to recover, and monitor the patient during this time
There is no mandatory amount of time a woman needs to stay at the facility following an uncomplicated D&E. Typically, 1 hour is sufficient to demonstrate stable vital signs, good pain control and minimal vaginal bleeding. The woman should be able to lie down or recline in a position that is comfortable for her during her recovery.

Step 10. Conduct post-procedure counseling

See p.55 for details on post-procedure counseling after surgical uterine evacuation.

Step 11. Clean and sterilize MVA and cannulae
MVA devices and cannulae must be cleaned, and HLD or sterilized after each patient. Always wear gloves when handling dirty instruments, and follow all other relevant IPC practices as outlined in the most current national IPC guidance[7].

See p.56-57 for details on cleaning and sterilization of MVA instruments.

[7] At the time of validation, this is the National Infection Prevention and Control Guidelines (2018)

Post-Abortion Family Planning & Other SRH Services

Fertility can return quickly following an abortion—spontaneous or induced—as ovulation can return within two weeks. Thus, a woman should be counseled on her family planning options during the same visit, and if she chooses a method, be provided with her chosen family planning method during the same visit. Family planning counseling should be conducted prior to abortion/PAC procedures (if the patient is stable), as well as following any abortion/PAC procedures.

In general, if there are no complications in the immediate post-abortion period, women can safety use a wide range of contraceptive methods (Table 10,

Table 11) (WHO, 2014; WHO/RHR and JHSPH 2018). As with the initiation of any method of contraception, providers should verify the client's medical eligibility for a method using the most up-to-date WHO Medical Eligibility Criteria for Contraceptive Use for detailed guidance (WHO, 2015), and method-specific counseling must be provided.

Table 10. Post-abortion medical eligibility for contraceptive use

	Post-abortion condition		
**Contraceptive method*, ** **	**First trimester**	**Second trimester**	**Immediate post-septic abortion**
Combined oral contraceptives (COCs) †	1	1	1
Combined injectable contraceptives (CICs)†	1	1	1
Patch & vaginal ring†	1	1	1
Progesterone-only pills (POPs) †	1	1	1
Progestogen-only injectables: DMPA, NET-EN† *(depot medroxyprogesterone acetate, norethisterone enanthate)*	1	1	1
Progestogen-only implants: LNG, ETG† *(levonorgestrel, etonogestrel)*	1	1	1
Copper-bearing intrauterine device (IUCD)	1	2	4
LNG-releasing IUCD	1	2	4
Condoms	1	1	1
Spermicide	1	1	1
Diaphragm	1	1	1

Category 1: a condition for which there is no restriction for the use of the contraceptive method.
Category 2: a condition where the advantages of using the method generally outweigh the theoretical or proven risks.
Category 3: a condition where the theoretical or proven risks usually outweigh the advantages of using the method.
Category 4: a condition that represents an unacceptable health risk if the contraceptive method is used.
**Fertility-awareness-based methods should be delayed until regular menstrual cycles return*
***See Table 11 below on post-abortion eligibility for female surgical sterilization*
†*Women can be given the option to start hormonal contraceptives immediately after the first pill of the medical abortion regimen, in cases of induced abortions (WHO, 2018)*

Table 11. Post-abortion medical eligibility for female surgical sterilization

Post-abortion condition	Eligibility for female surgical sterilization
Uncomplicated	A
Post-abortion sepsis or fever	D
Severe post-abortion hemorrhage	D
Severe trauma to the genital track; cervical or vaginal tear at the time of abortion	D
Uterine perforation	S
Acute hematometra	D

A = Accept: there is no medical reason to deny sterilization to a person with this condition.
C = Caution: the procedure is normally conducted in a routine setting, but with extra preparation and precautions.
D = Delay: the procedure is delayed until the condition is evaluated and/or corrected; alternative temporary methods of contraception should be provided.
S = Special: the procedure should be undertaken in a setting with an experienced surgeon and staff, and equipment is needed to provide general anesthesia and other back-up medical support; for these conditions, the capacity to decide on the most appropriate procedure and anesthesia regimen is also needed; alternative temporary methods of contraception should be provided, if referral is required or there is otherwise any delay.

Family planning counseling

Women and girls should be counseled on the wide-range of contraceptive methods available to her, based on factors including but not limited to her desired number of children, desired timing of pregnancy, and health status. The types and characteristics of family planning methods available, their advantages, disadvantages and side-effects, and correct usage, must be explained to the client in a way that she understands, using a balanced counseling strategy. Regardless of whether or not the client ultimately decides to use a contraceptive method, family planning counseling must ensure that a woman is able to make an informed choice – a voluntary choice based on knowledge of all available information relevant to the decision.

Women and girls must also be counselled on the importance of using condoms for dual protection against sexually-transmitted infections (STIs) and HIV/AIDS.

Family planning counseling must not exclude counseling on select methods based on whether a facility has a contraceptive method in stock, or whether the facility's providers have the capacity to provide such a method. In cases of stock-outs or lack of a trained provider when a woman has chosen her contraceptive method, a referral to another health facility must be made.

Providers must adhere to the following standards when counseling clients on family planning:

- Ensure privacy and confidentiality
- Are respectful of client's choices, culture, religion, age, and sexuality
- Listen actively and be attentive to the client's questions
- Use clear language and ensure that the client understands information as presented
- Avoid judgmental attitudes and behaviors
- Provide unbiased, evidence-based information regarding the benefits, risks, potential side effects and alternatives to all methods of contraception

Provision of family planning methods

If a woman has chosen to uptake a contraceptive method, the provider must advise the woman on the following:

- ❑ How and when to use the given method
- ❑ Including information on what to do when they miss a dose, for example, of oral contraceptive pills
- ❑ When to return for follow-up, based on the duration of effectiveness for the chosen method
- ❑ Where to go if she has any problems or questions about the chosen method

Where possible, the woman's chosen contraceptive method should be provided to her during the same visit. If a method cannot be provided at the facility, a referral to another health facility must be made.

Provision of other SRH services

Based on a comprehensive physical examination and history-taking, other SRH services should also be offered during the same care encounter as needed, or the appropriate referrals must be made. These services include, but are not limited to:

- STI screening, management and counseling (including contact-tracing)
- HIV counseling, testing, treatment and/or referral
- Screening, management and/or referral for confirmed or suspected gynecological pathologies (e.g. cervical cancer)
- Response to other concerns such as fertility, SGBV, FGM
- General SRH education and information

Provision of other SRH services and/or referrals should be done according to the most up-to-date national guidelines.

Community Linkages: Empowerment, Awareness, and Mobilization

The MOH recognizes the importance of community involvement in improving and sustaining implementation of high-quality PAC services, and the role that the community and community health workers play as it relates to emergency treatment, family planning, as well as health promotion and education.

Education and health promotion at the community level should include the dissemination of information, education and communication (IEC) materials, behavioral change communication (BCC) materials, facility-based health talks, and community-based outreach on PAC and related SRH services. Key messages surrounding contraceptive use and post-abortion care in IEC and BCC material should be evidence-based; for example, based on surveys and focus groups conducted with the target population. IEC and BCC material should be focused on improving the knowledge, attitudes, and practices of community members surrounding all elements of comprehensive abortion care (including family planning). Continuous engagement should be done with influential community dwellers (such as town chiefs, pastors, imams etc.) to create awareness to the larger community, and to enable community members to refer post-abortion patients to health facilities without stigmatization.

The community should also be mobilized to identify resource needs and gaps as related to PAC, and to share accountability for the reduction of overall maternal mortality. With the consent of the patient, care-takers, guardians, or other family members of the patient may be provided with knowledge from service providers on how to provide first-aid response to any potential complication or issues after a post-abortion care patient leaves the health facility.

References

Clinton Health Access Initiative. (2018). *Liberia SRH Facility Assessment Report.*

International Federation of Gynecology & Obstetrics [FIGO]. (2017). *Misoprostol-only recommended regimens.* Retrieved from https://www.figo.org/sites/default/files/uploads/project-publications/Miso/FIGO_Dosage_Chart%20EN_0.pdf

Ghana Health Services. (2012). *Prevention & management of unsafe abortion: Comprehensive abortion care services standards and protocols (Third Edition).* Accra, Ghana: Ghana Health Services.

Government of the Republic of Zambia, Ministry of Health. (2017). *Standards and guidelines for comprehensive abortion care in Zambia.* Zambia: Lusaka.

Guttmacher Institute. (2018). *Fact sheet: Induced abortion worldwide.* Retrieved from https://www.guttmacher.org/sites/default/files/factsheet/fb_iaw.pdf

High Impact Practices. (2012). *Postabortion family planning: Strengthening the family planning component of postabortion care.* Retrieved from https://www.fphighimpactpractices.org/wp-content/uploads/2017/06/PostabortionFamilyPlanning.pdf

Huber, D., Curtis, C., Irani, L., Pappa, S., & Arrington, L. (2016). Postabortion care: 20 Years of strong evidence on emergency treatment, family planning, and other programming components. *Global Health: Science and Practice, 4*(3), 481-494.

Ipas. (2013). *Woman-centered, comprehensive abortion care: Reference manual (second ed.)*, K. L. Turner & A. Huber (Eds.), Chapel Hill, NC: Ipas.

Ipas. (2018a). *Dilatation & evacuation (D&E) reference guide: Induced abortion and postabortion care at or after 13 weeks gestation age ('second trimester'),* A. Edelman & N. Kapp (Eds), Chapel Hill, NC: Ipas.

Ipas. (2018b). *Medical abortion reference guide: Induced abortion and postabortion care at or after 13 weeks gestation ('second trimester'),* A. Edelman & A. Mark (Eds.), Chapel Hill, NC: Ipas.

Ipas. (2019). *Processing the Ipas MVA Plus® Aspirator and Ipas EasyGrip® Cannulae.* Retrieved from https://ipas.azureedge.net/files/PROPLUS-E19.pdf

Jhpiego. (2010). *Postabortion Care Curriculum: Participant's Guide.* Maryland: Jhpiego Corporation.

Jhpiego. (2010). *Postabortion Care Curriculum: Trainer's Guide.* Maryland: Jhpiego Corporation.

Jhpiego. (2010). *Postabortion Care Curriculum: Reference Manual.* Maryland: Jhpiego Corporation.

Liberia Institute of Statistics and Geo-Information Services (LISGIS), Ministry of Health and Social Welfare [Liberia], National AIDS Control Program [Liberia], and ICF International. (2014). *Liberia Demographic and Health Survey 2013.* Monrovia, Liberia: Liberia Institute of Statistics and Geo-Information Services (LISGIS) and ICF International.

Liberia Institute of Statistics and Geo-Information Services (LISGIS) [Liberia], Ministry of Health and Social Welfare [Liberia], National AIDS Control Program [Liberia], and Macro International Inc. (2008). *Liberia Demographic and Health Survey 2007.* Monrovia, Liberia: Liberia Institute of Statistics and Geo-Information Services (LISGIS) and Macro International Inc.

Liberia Ministry of Health. (2010). *National Sexual & Reproductive Health Policy.* Monrovia, Liberia: Liberia Ministry of Health.

Liberia Ministry of Health. (2011a). *Essential Package of Health Services – Primary Care: The Community Health System.* Monrovia, Liberia: Liberia Ministry of Health.

Liberia Ministry of Health. (2011b). *Essential Package of Health Services – Secondary & Tertiary Care: The District, County & National Health Systems.* Monrovia, Liberia: Liberia Ministry of Health.

Liberia Ministry of Health. (2016a). *Investment Case for Reproductive, Maternal, New-born, Child, and Adolescent Health, 2016-2020.* Monrovia, Liberia: Liberia Ministry of Health. Retrieved from https://www.globalfinancingfacility.org/sites/gff_new/files/Liberia-Investment-Case.pdf

Liberia Ministry of Health. (2016b). *National Community Health Services Policy, 2016-2021.* Monrovia, Liberia: Liberia Ministry of Health.

Liberia Ministry of Health. (2016c). *National Policy & Strategic Plan on Health Promotion, 2016-2021.* Monrovia, Liberia: Liberia Ministry of Health.

Liberia Ministry of Health. (2017). *National Standard Therapeutic Guidelines & Essential Medicines List (2nd Edition).* Monrovia, Liberia: Ministry of Health.

Liberia Ministry of Health. (2018). *National Infection Prevention and Control Guidelines.*

Médecins Sans Frontières [MSF]. (2015). *Essential obstetric and newborn care: Practical guide for midwives, doctors with obstetrics training and health care personnel who deal with obstetric emergencies (2015 edition).* Paris, France: Médecins Sans Frontières.

Ministry of Health, Republic of Botswana. (2013). *Comprehensive post abortion care reference manual.* Botswana: Gaborone.

Moseson, H., Massaquoi, M., Dehlendorf, C., Bawo, L., Dahn, B., Zolia, Y., …& Gerdts, C. (2015). Reducing under-reporting of stigmatized health events using the List Experiment: Results from a randomized, population-based study of abortion in Liberia. *International Journal of Epidemiology, 44*(6), 1951-1958.

Postabortion Care Consortium Community Task Force. (2002). *Essential Elements of Postabortion Care: An Expanded and Updated Model.*

RAISE Initiative. (2009). *Clinical Training for Reproductive Health in Emergencies – Post-Abortion Care: Trainer Guide.* London, Nairobi and New York: Reproductive Health Access Information and Services in Emergencies Initiative.

UNFPA. (2004). *Programme of Action adopted at the International Conference on Population and Development Cairo, 5–13 September 1994.* Retrieved from https://www.unfpa.org/sites/default/files/event-pdf/PoA_en.pdf

United Republic Tanzania, Ministry of Health, Community Development, Gender, Elderly and Children. (2016). *Comprehensive post abortion care guideline: Trainees manual (second edition).* Tanzania: Dar es Salaam.

USAID Post-Abortion Care Working Group. (2007a). *Postabortion care global resources: A guide for program design, implementation, and evaluation.*

USAID Post-Abortion Care Working Group. (2007b). *What works: A policy and program guide to the evidence on postabortion care.*

World Health Organization. (2012). *Safe abortion: Technical and policy guidance for health systems (second edition).* Geneva: World Health Organization.

World Health Organization. (2014). *Clinical practice handbook for safe abortion.* Geneva: World Health Organization.

World Health Organization. (2015). *Medical eligibility criteria for contraceptive use (5th edition).* Geneva: World Health Organization.

World Health Organization. (2018). *Medical management of abortion.* Geneva: World Health Organization.

World Health Organization Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP), Knowledge for Health Project. (2018). *Family planning: A global handbook for providers (2018 update).* Baltimore and Geneva: CCP and WHO.

World Health Organization & UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction [HRP]. (2019). *Global Abortion Policies Database: Liberia Penal Law 1978.* Retrieved from https://abortion-policies.srhr.org/documents/countries/01-Liberia-Penal-Law-1978.pdf

Appendices

Appendix 1. Current Liberia Penal Code Title 26, Section 16.3 (1978)

§ 16.3. Abortion.

1. Unjustified abortion. A person who purposely and unjustifiably terminates the pregnancy of another otherwise than by a live birth commits a felony of the third degree or, where the pregnancy has continued beyond the twenty-fourth week a felony of the second degree.

2. Justifiable abortion. A licensed physician is justified in terminating a pregnancy if he believes there is substantial risk that continuance of the pregnancy would gravely impair the physical or mental health of the mother or that the child would be born with grave physical or mental defect, or that the pregnancy resulted from rape, incest, or other felonious intercourse. An illicit intercourse with a girl below the age of sixteen shall be deemed felonious for purpose of this paragraph.

3. Physicians' certificate: presumption from non-compliance. No abortion shall be performed unless two physicians, one of whom may be the person performing the abortion, shall have certified in writing the circumstances which they believe to justify the abortion. Such certificate shall be submitted before the abortion (a) to the hospital where it is to be performed, or if the abortion is not performed in a hospital, to the Minister of Health, and (b) in the case of abortion following felonious intercourse, to the County Attorney or the police. Failure to comply with any of the requirements of this paragraph gives rise to a presumption that the abortion was unjustified.

4. Self-abortion. A woman whose pregnancy has continued beyond the twenty-fourth week commits a felony of the third degree if she purposely terminates her own pregnancy otherwise than by a live birth, or if she uses instrument, drugs, or violence upon herself for that purpose. Except as justified under paragraph (2), a person who induces or knowingly aids a woman to use instruments, drugs or violence upon herself for the purpose of terminating her pregnancy otherwise than by a live birth commits a felony of the third degree whether or not the pregnancy has continued beyond the twenty-fourth week.

5. Pretended abortion. A person commits a felony of the third degree, if, representing that it is his purpose to perform an abortion, he does an act adapted to cause abortion in a pregnant woman although the woman is in fact not pregnant, or the actor does not believe she is.

A person charged with unjustified abortion under paragraph (1) or an attempt to commit that offense may be convicted thereof upon proof of conduct prohibited by this paragraph.

6. Section inapplicable to preventing of pregnancy. Nothing in this section shall be deemed applicable to the prescription, administration or distribution 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

Appendix 2. Commodities, Supplies and Equipment for Comprehensive Abortion Care

For PAC

For surgical abortion

For medical abortion

Equipment & supplies
- ❑ MVA kit (manual vacuum aspirator + all sizes of cannulae + dilators; silicone gel)
- ❑ Speculum
- ❑ Tenaculum
- ❑ Forceps, Kelly placenta (long-handled)
- ❑ Forceps, mosquito
- ❑ Forceps, Bierer ovum/uterine evacuation
- ❑ Forceps, Sopher ovum/uterine evacuation
- ❑ Uterine sound
- ❑ Scissors
- ❑ Gauze
- ❑ Cotton swabs
- ❑ Gloves, examination, non-sterile (latex or nitrile)
- ❑ Gloves, surgical, sterile
- ❑ Drape (disposable)
- ❑ Kidney dish or gallipot
- ❑ Equipment tray
- ❑ Needle & syringe
- ❑ Head lights
- ❑ Delivery bed (with stirrups)

Analgesics (at least 1 from list)
- ❑ Ibuprofen
- ❑ Diclofenac
- ❑ Paracetamol / Acetaminophen*

Anesthetics (at least 1 from list)
- ❑ Lidocaine/lignocaine
- ❑ Bupivacaine

Other sedatives
- ❑ Diazepam
- ❑ Ketamine

Other
- ❑ Non-pneumatic anti-shock garment (NASG)
- ❑ Balanced contraceptives method mix

Broad-spectrum antibiotics (at least 1 from list)
- ❑ Ciprofloxacin
- ❑ Benzylpenicillin
- ❑ Amoxicillin
- ❑ Ampicillin
- ❑ Metronidazole
- ❑ Ceftriaxone
- ❑ Gentamicin + Ampicillin

Antiseptics
- ❑ Povidone-iodine (e.g. Betadine®)
- ❑ Chlorhexidine

Oxytocics
- ❑ Misoprostol
- ❑ Oxytocin
- ❑ Ergometrine

IV solutions & accessories
- ❑ Water for injections
- ❑ Sodium lactate / Ringer's lactate
- ❑ Glucose 5% in water
- ❑ Glucose 50%
- ❑ Glucose with isotonic saline
- ❑ Potassium chloride
- ❑ Sodium chloride
- ❑ IV tubing, cannulae, etc.

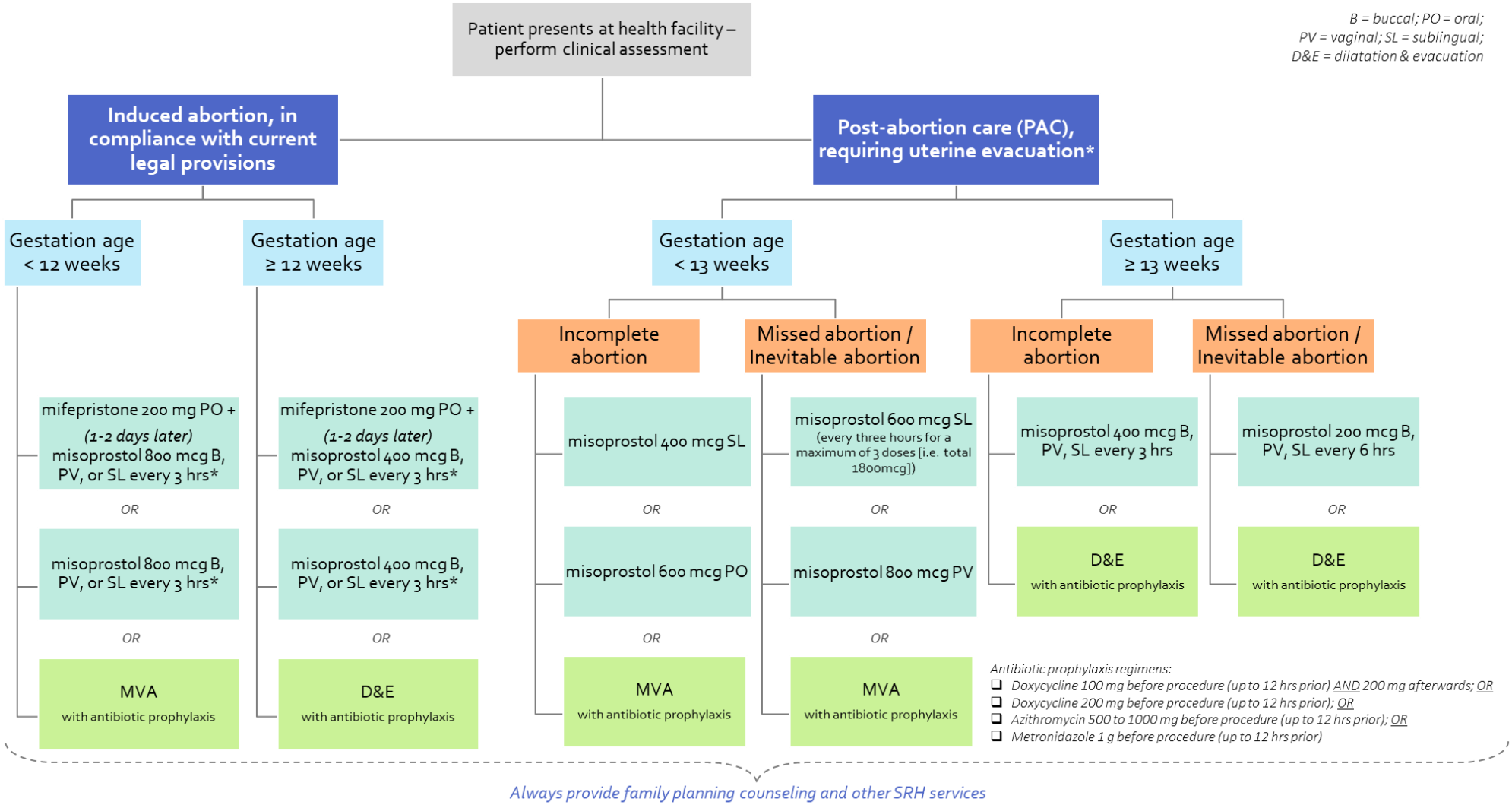
Antifibrinolytic
- ❑ Tranexamic acid (TXA)

Medical abortion commodities
- ❑ Misoprostol
- ❑ Mifepristone

(or together in combipack)

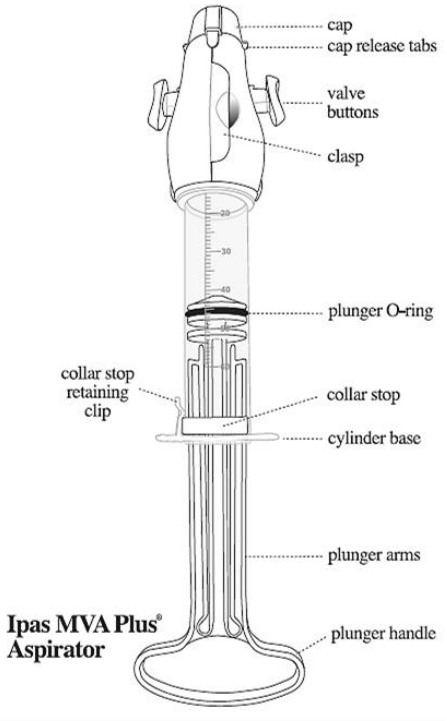
**Paracetamol is recommended in safe abortion/PAC as an antipyretic drug for fever, but not as pain management; NSAIDs are the recommended pain management options*

Appendix 3. Decision Flowchart for Uterine Evacuation Methods

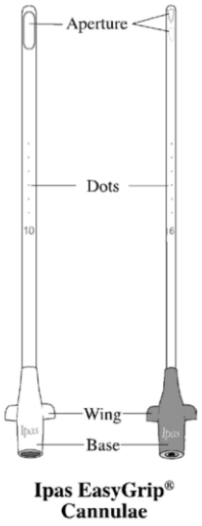


Additional notes: ❖ *The most recent WHO guidance (2018) does not indicate a maximum dose of misoprostol: Repeat doses of misoprostol can be considered when needed to achieve success of the abortion process. Providers should use caution and clinical judgement to decide the maximum number of doses of misoprostol in pregnant individuals with prior uterine incision.* ❖ *Surgical abortion should be performed in case of medication failure.* ❖ *Misoprostol is not advised when delayed uterine evacuation could add significant risk to the patient. In such cases, MVA is preferred method of management.*

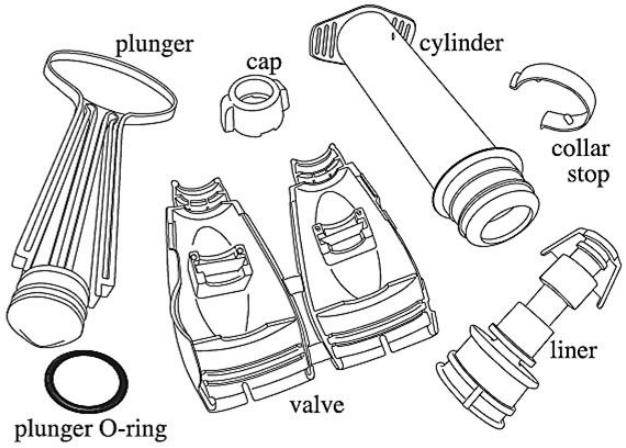
Appendix 4. Example MVA Device & Components



Ipas MVA Plus® Aspirator assembled



Ipas EasyGrip® Cannulae



Ipas MVA Plus® Aspirator disassembled

Appendix 5. MVA Troubleshooting

Possible reason for loss of or decrease in vacuum pressure	Potential solutions
Vacuum was not generated in the first place	▪ Check for vacuum pressure → Disconnect aspirator from cannula, release the buttons on the valve and you should hear a rush of air ▪ If not, ensure that all pieces of device are in place and not broken ▪ Replace device or its components if necessary
Aspirator is full	▪ Leave cannula in place ▪ Detach aspirator from the cannula tip, and empty the aspirator ▪ Re-establish vacuum
Tip or opening of the cannula has been pulled outside of cervical os	▪ Slowly remove cannula without contaminating it (i.e. it should not touch vaginal walls or other non-sterile surfaces) ▪ If contaminated, replace with another sterile cannula ▪ Detach aspirator from the cannula, empty its contents, and re-establish vacuum ▪ Re-connect to aspirator, release vacuum, and continue aspiration
Cannula is clogged	▪ Gently pull the cannula towards you but not completely out ▪ If this does not work, detach aspirator from cannula, and remove cannula from uterus ▪ Use sterile forceps to remove tissue from the tip opening of cannula (make sure not to contaminate cannula) ▪ Re-insert cannula into uterus, re-establish vacuum in aspirator, and re-connect it to cannula; continue procedure
Incorrect assembly of MVA	▪ Reassemble MVA correctly
Incomplete seal of cervix around cannula	▪ Use larger diameter cannula
Defective or broken aspirator	▪ Check that the O-ring is placed properly around the plunger, with no debris or cracks ▪ Make sure the cylinder is not broken
Uterine perforation	▪ In rare cases, uterine perforation can occur after MVA, especially if uterine size was not accurately assessed beforehand ▪ Remember, however, that vacuum suction is NOT ALWAYS lost if the uterus is perforated. Sometimes vacuum suction may be maintained, but the patient continues to bleed or shows signs/symptoms of intra-abdominal injury. In these cases, re-assess and consider uterine perforation or other complications.

**Note that excessive lubrication could cause the aspirator to lose vacuum*

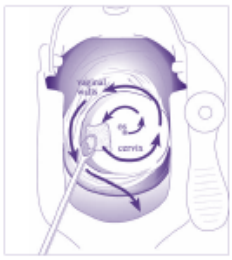
Appendix 6. Steps for Performing MVA Procedure

Steps for Performing Manual Vacuum Aspiration (MVA) Using the Ipas MVA Plus® and Ipas EasyGrip® Cannulae

Step One: Prepare the Patient

- Administer pain medication before the procedure to have maximum effect when the procedure begins.
- Give prophylactic antibiotics to all women, or therapeutic antibiotics if indicated.
- Ask the woman to empty her bladder.
- Conduct a bimanual exam to confirm uterine size and position.
- Insert speculum and observe for signs of infection, bleeding or incomplete abortion.

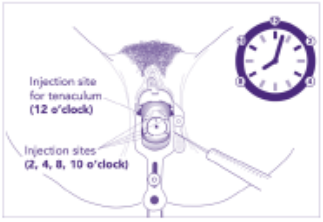
Step Two: Perform Cervical Antiseptic Prep



- Use antiseptic-soaked sponge to clean cervical os. Start at os and spiral outward without retracing areas. Repeat until os has been completely covered by antiseptic.

Step Three: Perform Paracervical Block

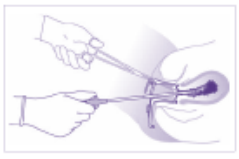
- Paracervical block is required prior to MVA.
- Perform paracervical block with 20cc of 1% lidocaine, or 10cc of 2% lidocaine. Inject a small amount of lidocaine (1-2cc) into the cervix at the tenaculum site (12 o'clock). Inject the remaining lidocaine in equal amounts at the cervicovaginal junction at 2, 4, 8 and 10 o'clock. Always aspirate before injecting to prevent intravascular injection of lidocaine.



Step Four: Dilate Cervix

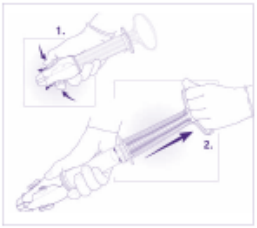
- Observe no-touch technique when dilating the cervix and during aspiration. Instruments that enter the uterine cavity should not touch your gloved hands, the patient's skin, the woman's vaginal walls, or unsterile parts of the instrument tray before entering the cervix.
- Use mechanical dilators or progressively larger cannulae to gently dilate the cervix to the right size.

Step Five: Insert Cannula



- While applying traction to the tenaculum, insert cannula through the cervix, just past the os and into the uterine cavity.
- Do not insert the cannula forcefully.

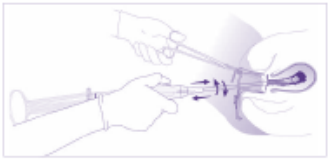
Step Six: Prepare the Aspirator



- Position the plunger all the way inside the cylinder.
- Have collar stop in place with tabs in the cylinder holes.
- Push valve buttons down and forward until they lock (1).
- Pull plunger back until arms snap outward and catch on cylinder base (2).

Step Seven: Suction Uterine Contents

- Attach the prepared aspirator to the cannula.



- Release the vacuum by pressing both buttons.
- Evacuate the contents of the uterus by gently and slowly rotating the cannula 180° in each direction, using an in-and-out motion.
- When the procedure is finished, depress the buttons and disconnect the cannula from the aspirator. Alternatively, withdraw the cannula and aspirator without depressing the buttons.

Signs that indicate the uterus is empty:

- Red or pink foam without tissue is seen passing through the cannula.
- A gritty sensation is felt as the cannula passes over the surface of the evacuated uterus.
- The uterus contracts around or grips the cannula.
- The patient complains of cramping or pain, indicating that the uterus is contracting.

Step Eight: Inspect Tissue

- Empty the contents of the aspirator into a container.
- Strain material, float in water or vinegar and view with a light from beneath.
- Inspect tissue for products of conception, complete evacuation and molar pregnancy.
- If inspection is inconclusive, reaspiration or other evaluation may be necessary.

Step Nine: Perform Any Concurrent Procedures

- When procedure is complete, proceed with contraception or other procedures, such as IUD insertion or cervical tear repair.

Step Ten: Immediately After the Procedure

- Reassure the woman that the procedure is finished.
- Ensure she is escorted to the recovery area.
- Immediately process or discard all instruments, according to local protocols.

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PERFMVA-E17

Appendix 7. Example MVA Cleaning & Processing Procedures

Below are example MVA cleaning and processing techniques from Ipas, for the Ipas MVA Plus®. MVA devices from other brands may not use the exact procedure for cleaning and processing; always refer to specific instructions set out by the manufacturer.

Processing the Ipas MVA Plus® Aspirator and Ipas EasyGrip® Cannulae

The following options are consistent with best practices regarding reuse of the Ipas MVA Plus Aspirator and Ipas EasyGrip Cannulae. Use care when developing site protocols regarding the processing of instruments. Chemicals or processing methods other than the ones listed here may cause damage.

Basics of Infection Prevention

- Wash hands immediately before and after every patient contact.
- Consider all blood and body fluids from all patients to be potentially infectious.
- Use personal protective barriers (gloves, gowns, face protection, shoes) when contact with blood or other body fluids is expected.
- Avoid accidental skin punctures; use care when handling needles.
- Use *No-Touch Technique:* The tip of the cannula, or the tip of any other instrument that enters the uterus, should never touch nonsterile surfaces (including the vaginal walls) prior to insertion.

1 Pre-Soak

Immediately following the procedure, all Ipas MVA Plus Aspirators and Ipas EasyGrip Cannulae that will be reused should be kept wet until cleaning. Water or a disinfectant such as 0.5% chlorine solution can be used.

CAUTION: Aspirators and cannulae are not safe to handle with bare hands until cleaned.

2 Clean and Disassemble Instruments

- Clean all instrument surfaces thoroughly in warm water and preferably detergent—not soap. Wear gloves and face protection.
- Disassemble the aspirator by pulling the cylinder out of the valve. Remove the cap by pressing down the cap-release tabs with one hand and pulling off the cap with the other hand.
- Open the hinged valve by pulling open the clasp. Place the right thumb alongside the right valve button and the left thumb on the valve latch. With the left thumb, pull up and to the left on the valve latch while pushing down and out on the valve body with the right thumb. Remove the valve liner.
- Disengage the collar stop by sliding it sideways under the retaining clip, or remove the collar stop completely.
- Pull the plunger completely out of the cylinder. Displace plunger O-ring by squeezing its sides and rolling it into the groove below.
- Instruments must be completely clean before further processing. If tissue is trapped in the tip of a cannula, flush water through the cannulae repeatedly or use a cotton- tipped probe, soft brush or soft cloth to gently remove material. If unable to remove blood or tissue during cleaning despite repeated attempts, discard the instrument.

CAUTION: Do not use any pointed or sharp objects to clean the valve parts or to move the O-ring. This could cause damage and prevent the aspirator from maintaining a vacuum.

3 Processing Options

The Ipas MVA aspirator does not directly touch the woman's body. However, when it is used, the cylinder fills with blood. There is the potential risk that some contaminants from a previous woman could be introduced to another woman if the MVA aspirator is not fully processed (soaked, cleaned and sterilized or high-level disinfected) between each use. Therefore, after cleaning, the Ipas MVA Plus must undergo high-level disinfection or sterilization between patients to remove contaminants. Once processed, the aspirator may be kept in a clean container. Aspirators must be completely disassembled for all processing methods. Ipas EasyGrip Cannulae require high-level disinfection or sterilization before re-use and must be high-level disinfected or sterile when inserted into the uterus. Chemical processing agents are hazardous substances. When processing instruments, take necessary precautions, such as using personal protective equipment. Refer to the manufacturer's safety instructions to establish safe use.

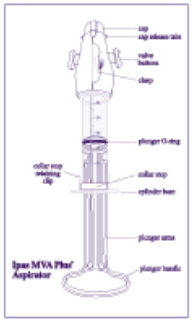
For optimal infection prevention, items should be processed using a method that provides the highest level of effectiveness. **Use one of the following methods,** listed in order of descreasing effectiveness:

Sterilize

- Steam autoclave in linen or paper for 30 minutes at 121°C (250°F) and 106kPa (15lbs./in²). DO NOT USE OTHER AUTOCLAVE SETTINGS, SPECIFICALLY DO NOT USE HIGHER SETTINGS ("FLASH AUTOCLAVING"). Lay package flat in the autoclave to avoid bending of cannulae.
- Soak completely immersed in 2% glutaraldehyde solution (Cidex® or equivalent) for the time recommended by the manufacturer—most recommend 10 hours.
- Soak completely immersed in Sporox® II solution for 6 hours.

High-Level Disinfect

- Boil for 20 minutes. Grasping hot cannulae may cause flattening. Let water cool before removing cannulae and handle by the adapter/base.
- Soak completely immersed in a 0.5% chlorine solution for 20 minutes. Change chlorine solution daily or sooner if solution becomes cloudy.
- Soak completely immersed in 2% glutaraldehyde solution (Cidex® or equivalent) for the time recommended by the manufacturer—recommendations range from 20–90 minutes.
- Soak completely immersed in Sporox® II solution for 30 minutes.



After Processing MVA Instruments

- If chemical agents were used in processing, Ipas EasyGrip Cannulae are to be thoroughly rinsed with either boiled water (for instruments that were high-level disinfected) or sterile water (if instrument was sterilized) after processing. Ipas MVA Plus Aspirator parts can be thoroughly rinsed in clean potable water (drinking water).

4 Store or Use Immediately

Storage

- Store instruments in a clean, dry container protected from contaminants, in an environment that preserves the level of processing desired. Keep only a small number of instruments in each container. Handle cannulae by the base ends. **Instruments processed by wet methods should ideally be reprocessed daily.**

Assembly and Use

- Before use, reassemble, lubricate and check vacuum capability of the aspirator.
- Place the valve liner in position inside the valve by aligning the internal ridges. Close the valve until it snaps in place. Snap the cap onto the end of the valve. Push the cylinder into the base of the valve without twisting.
- Place the plunger O-ring in the groove at the end of the plunger and lubricate it by spreading one drop of lubricant around the O-ring with a fingertip. Silicone or other non-petroleum-based lubricants can be used. Squeeze the plunger arms and insert the plunger fully into the cylinder. Move the plunger in and out to lubricate the cylinder. Insert the tabs of the collar stop into the holes in the cylinder.
- Check vacuum by pushing the buttons down until they lock, and pulling the plunger back until the plunger arms lock. Leave in this position for two to three minutes, then release buttons. A rush of air indicates that the aspirator maintained the vacuum.
- If you do not hear the rush of air, remove the plunger. Check the plunger O-ring and instrument for foreign particles and cracks. If the aspirator still loses vacuum, it should be discarded.

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PROPLUS-E18

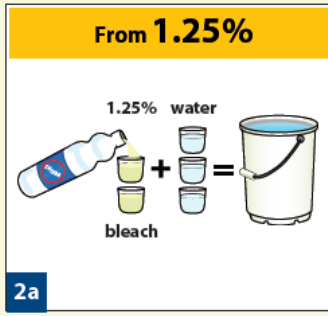
Appendix 8. Making 0.5% Clorox Solution

How to Make Strong (0.5%) Chlorine Solution from Liquid Bleach

Use strong (0.5%) chlorine solution to clean and disinfect surfaces, objects, and body fluid spills.
Make new strong (0.5%) chlorine solution every day. Throw away any leftover solution from the day before.

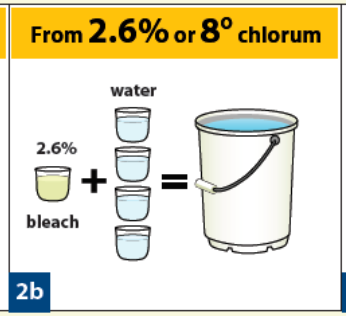
Make sure you are wearing **extended PPE**.

From 1.25%



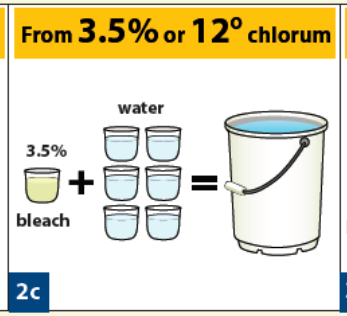
Pour 2 parts liquid bleach and 3 parts water into a bucket. Repeat until full.

From 2.6% or 8° chlorum



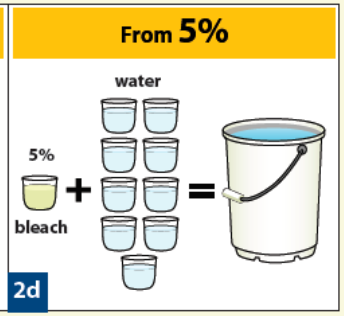
Pour 1 part liquid bleach and 4 parts water into a bucket. Repeat until full.

From 3.5% or 12° chlorum

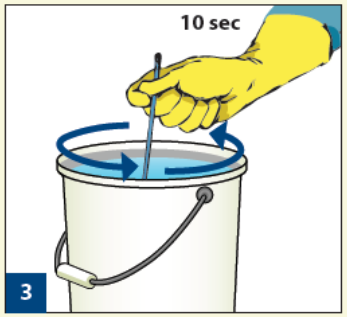


Pour 1 part liquid bleach and 6 parts water into a bucket. Repeat until full.

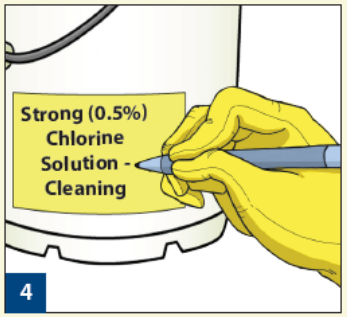
From 5%



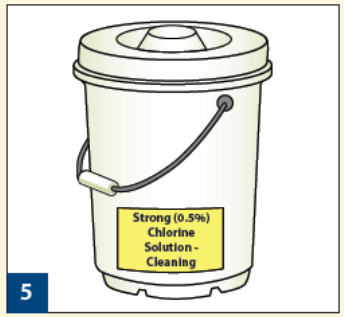
Pour 1 part liquid bleach and 9 parts water into a bucket. Repeat until full.



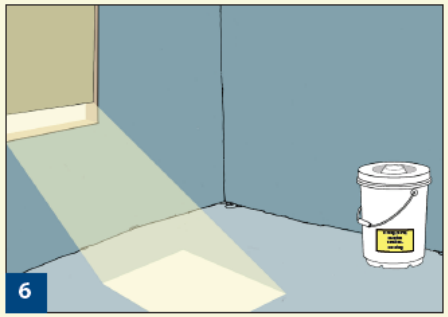
Stir well for 10 seconds.



Label bucket "**Strong (0.5%) Chlorine Solution - Cleaning.**"



Cover bucket with lid.



Store in shade. Do not store in direct sunlight.