ORIGINAL ARTICLE

CONTENTS

Complications and adverse outcomes related to induced abortion in female from the Ukrainian-Russian military conflict regions: A multicentre study

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ABSTRACT

Aim: To provide an overview of complications and adverse outcomes related to induced abortion in female from the Eastern and Southern Ukrainian-Russian military conflict regions.

Material and Methods: This are a multicentre combined retrospective and prospective cohort study. All women who underwent induced abortion in Eastern and Southern Ukrainian-Russian military conflict regions between 2022 and 2024 are included in the study.

Results: A total of 14,196 induced abortion were performed, 10,630 (74.9%) complications cases were observed. The most complication were infections (71.1%), cervical injury (6.6%), incomplete abortion (5.4%), hemorrhage (5.2%), and uterine perforation (4.9%). The most common infection related to induced abortions was endometritis (21.6%), cervicitis (17.8%), vaginal cuff infections (16.3%), peritonitis (12.3%) and pelvic abscess (10.7%), followed by adnexa utery (8.1%), parametritis (6.7%), salpingitis (5.1%), sepsis (1.3%) and other (0.2%) infections. The main risk factors was increased maternal age, surgical abortion approach, increased gestational age, prior cesarean delivery, presence of a bleeding disorder, fetal demise before the abortion, lack of healthcare facilities, lack of essential medication, lack of personnel and equipment, and surgical inexperience.

Conclusions: This study findings demonstrate the high rate of complications related to induced abortion in the Ukrainian-Russian military conflict regions. The ongoing war has led to a decline in the quality of healthcare services and main reason for the high rate of complications and adverse outcomes related to induced abortion in female from the military conflict regions.

KEY WORDS: induced abortion, complications and adverse outcomes, the Ukrainian-Russian military conflict regions, risk factors, Ukraine

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INTRODUCTION

According to official data, the population of Ukraine is rapidly shrinking. First of all, this is connected with the ongoing war of the Russian Federation against Ukraine. Death rates in the country have been higher than birth rates. Many Ukrainian women fled to the European Union countries. Although emigration of women due to the war in eastern and southern Ukraine played a role, the

biggest decline was due to low birth rates. Many women are forced to terminate pregnancies through induced abortion due to the war. Induced abortion in Ukraine is legal between 12 and 28 weeks for any reason with the approval of a commission of physicians. According to the literature, between 2017-2019 the number of induced abortions has sharply increased in Ukraine [1].

Induced abortion, is a common medical procedure in world. This procedure can be performed through medication or surgery. According to the literature, worldwide, approximately 73 million induced abortions occur annually, which carry potential risks and complications [2]. Therefore, understanding induced abortion-related complications is essential for both patients and healthcare professionals. In the United States, approximately 1 million induced abortions are performed each year, and complications occur in approximately 2% of elective abortions [3-7]. According to the literature, the main complications associated with induced abortions are ongoing pregnancy, incomplete abortion, hemorrhage, ectopic pregnancy, infection, drug reaction, disseminated intravascular coagulation, hematometra, injury to the uterus or cervix and uterine rupture [2, 5-8]. The mortality rate from legally induced abortion in countries with limited access represent around 1 in 10 maternal deaths [9]. The mortality rate from legally induced abortion in the United States was 1 out of every 28 maternal deaths [3]. In Ukraine, there are no official or literary data on the frequency of complications or adverse outcomes and mortality rates associated with induced abortion.

Induced abortion rates continue to be a significant public health concern in world. However, yet the relationship between abortion events and the presence of complications and adverse outcomes remains underexplored in the existing literature. Although some studies have suggested various associations between induced abortion events and the presence of complications and adverse outcomes, gaps persist in understanding the underlying mechanisms and risk factors.

The ongoing war in Ukraine has damaged hospitals and clinics, making it difficult for women to access reproductive health services, including abortion. However, no studies have been conducted on induced abortion in women living in the zone of the Ukrainian-Russian military conflict. Knowledge of complications and adverse outcomes associated with induced abortion in these regions are unknown.

AIM

The aims of this study are to provide an overview of complications and adverse outcomes related to induced abortion in female from the Eastern and Southern Ukrainian military conflict regions.

MATERIALS AND METHODS

STUDY DESIGN, SETTING, AND POPULATION

This is a multicentre combined retrospective and prospective follow-up cohort study of women who had an induced abortion in Eastern and Southern Ukrainian-Russian military conflict regions between 2022 and 2024. Participants in this study were admitted to gynecologic departments at 15 hospitals located in the Kharkiv (3 hospitals), Donetsk (3 hospitals), Kherson (3 hospitals), Zaporizhzhia (3 hospitals), Dnipropetrovsk (1 hospitals) and Odessa (2 hospitals) regions. The induced abortions were managed by the gynecological clinics at all 15 hospitals. Of these, 11 are government healthcare facilities and 4 private clinics. All women who underwent induced abortion at hospitals located in the Ukrainian-Russian military conflict regions between 2022 and 2024. All women considering an induced abortion were seen by a gynecologist at the gynecological clinics. In this study, any legal induced abortion indication was acceptable. Exclusion criteria: women who did not proceed with an abortion and women who refused to sign the informed consent form.

DEFINITION

In the present study, the length of the pregnancy in all women was established through a vaginal ultrasound and the gestational age was reported as weeks. In this study, events were defined as any abortion-related morbidity or adverse event that received an abortion-related diagnosis or treatment code at any care location. Induced abortion in women in the first trimester is defined as occurring through the 12th week of pregnancy and second trimester is defined as 13–27 weeks of pregnancy. First-trimester surgical abortion is performed with vacuum aspiration (suction curettage) and second-trimester abortion by a dilation and evacuation procedure. Induced abortion in women was classified as elective and urgent. Infection after induced abortion in women was based on criteria from the Centers for Disease Control and Prevention's National Healthcare Safety Network (CDC/NHSN).

DATA COLLECTION

We collected the demographic and clinical data, and outcome information using structured checklist. In present study, we analyzed the inpatient data and

Table 1. Distribution of complications (n=10,630) related to induced abortion in female among healthcare facilities in the Eastern and Southern Ukrainian-Russian military conflict regions, 2022-2024

Healthcare facilities	Number of women, n	Complications				Incidence of complications (95% CI)
		Yes		No		
		n	%	n	%	
1	1,135	789	69.5	346	30.5	68.1 – 70.9
2	876	711	81.2	165	18.8	79.9 – 82.5
3	1,422	1,027	72.2	395	27.8	7.1 – 73.4
4	1,143	874	76.5	269	23.5	75.2 – 77.9
5	987	741	75.1	246	24.9	73.7 – 76.5
6	518	427	82.4	91	17.6	80.7 – 84.1
7	1,046	802	76.7	244	23.3	75.4 – 78.1
9	1,207	996	82.5	211	17.5	81.4 – 83.6
10	1,127	831	73.7	296	26.3	72.4 – 75.1
11	1,401	987	70.4	414	29.6	69.2 – 71.6
12	931	681	73.1	250	26.9	71.7 – 74.6
13	836	597	71.4	270	28.6	69.8 – 72.9
14	755	576	76.3	179	23.7	74.8 – 77.8
15	812	591	72.8	221	27.2	71.2 – 74.4
Total	14,196	10,630	74.9	3,566	25.1	74.5 – 75.3

CI, confidence interval
Source: compiled by the authors of this study

ambulatory medical records to identify complications and adverse outcomes related to induced abortion in female from the Eastern and Southern Ukrainian military conflict regions. Checklist was used to classify specific events into 1 or more specific diagnoses: retained products of conception, failed abortion, hemorrhage, infection, uterine perforation, anesthesia reaction, symptomatic intrauterine material, postabortal hematometra, cervical injury, disseminated intravascular coagulation, missed ectopic pregnancy, and other or undetermined. Events were classified as major if they required hospital admission, others were classified as minor. The primary complications were the occurrence of at least one induced abortion -related adverse event, including hemorrhage, retained products of conception, genital tract and pelvic infection, transfusion, fistulas and neighboring lesions, local hematoma, failure of abortion, death. The secondary outcome encompassed general adverse events related to induced abortion in female. These events were monitored during the hospital stay, return to hospital, and during visits to ambulatory. In our study, interviews occurred if the woman signed an informed consent form. Abortion complications were assessed in women who came in contact with the gynecological clinics within 30 days after the procedure. Adverse outcomes related to induced abortion were assessed in women within 6 months after the procedure.

ETHICS

This study was approved by the Ethics Committee of the Shupyk National Healthcare University of Ukraine. All eligible study participants were given detailed explanation of the study as information about confidentiality. All women signed an informed consent form. In this study all participants data were anonymized.

STATISTICAL ANALYSIS

All complications and adverse outcomes related to induced abortion data were entered in an Excel (Microsoft Corp., Redmond, WA, USA) database for statistical analysis. In this study SPSS version 22 was used for calculating a relative risk with a 95% confidence interval (CI). Descriptive data for continuous variables are expressed as mean ± standard deviation for continuous variables, and number and corresponding percentage for qualitative variables, and $\chi 2$ test was used to test for statistical significance. Logistic regression analysis was used to explore associations between risk factors and occurrence of a complications and adverse outcomes related to induced abortion. In our study $P<0.05$ was considered to indicate statistical significance.

RESULTS

A total the study cohort comprised 14,196 women who had an induced abortion in Eastern and Southern

Table 2. Distribution of specific types of abortion-related complications and adverse events (n=10,630) in female from the Eastern and Southern Ukrainian-Russian military conflict regions, 2022-2024

Type of complications	Complication cases		95% CI
	n	%	
Infections	7,562	71.1	70.7 - 71.5
Cervical trauma (injury)	704	6.6	6.4 - 6.8
Symptomatic intrauterine material (incomplete abortion)	569	5.4	5.2 - 5.6
Hemorrhage	557	5.2	5.0 - 5.4
Uterine perforation	521	4.9	4.7 - 5.1
Post-abortal hematometra	279	2.6	2.5 - 2.8
Missed ectopic pregnancy	198	1.9	1.8 - 2.0
Failed abortion (ongoing pregnancy)	126	1.2	1.1 - 1.3
Disseminated intravascular coagulation	68	0.6	0.5 - 0.7
Anesthesia-reaction (drug reaction)	32	0.3	0.2 - 0.4
Other*	14	0.1	0.07 – 0.13
Total	10,630	100.0	-

CI, confidence interval

*Involve injury to adjacent organs, such as the bladder (11 cases) or rectum (3 cases)

Source: compiled by the authors of this study

Ukrainian-Russian military conflict regions between 2022 and 2024. The mean age of women was 28 years (range, 13-59 years; SD, 7.3 years). Induced abortion in women was classified as elective (37.1%) and urgent (62.9%). The incidence of complications and adverse outcomes related to induced abortion among these women was 74.9% [95% confidence interval (CI), 74.5-75.3, p<0.002]. The number of induced abortions gradually increased throughout the study. Surgical abortion in performed with vacuum aspiration (suction curettage) were the most common procedure (54.7%), followed by abortion by a dilation and evacuation procedure (27.8%), and medical abortion (6.7%). The share of induced abortions performed by a dilation and evacuation procedure increased between 2022 and 2024 while the share of abortion in performed with vacuum aspiration and medical abortions has decreased. Complications were registered in 10,630 (74.9%) of all induced abortions. The frequent of complications related to induced abortion performed by a dilation and evacuation procedure, vacuum aspiration and medical abortions were 57.9%, 35.7% and 6.4%, respectively. The incidence rates of complications related to induced abortion varied significantly between healthcare facilities (Table 1).

The highest complication rate was observed in women in government healthcare facilities, followed by private clinics (results not shown). Over time, the rate of complications for induced abortions increased. This difference was significant (RR 1.69, 95% CI 24–2.46). More than fifty percent of the patients with of complications and adverse outcomes related to induced abortion required repeat hospitalization. More of thirty-five percent (35.2%) of 7,562 patients with infection required a repeat surgical procedure directly related to the wound infection.

The complication related to induced abortions were infections (7,562 [71.1%] of all cases), cervical injury (704 [6.6%]), incomplete abortion (569 [5.4%]), hemorrhage (557 [5.2%]), uterine perforation (521 [4.9%]), post-abortal hematometra (279 [2,6%]), ectopic pregnancy (198 [1.9%]), ongoing pregnancy (126 [1,2%]), disseminated intravascular coagulation (68 [0.6%]), and drug reaction (46 [0.4%]). Distribution of complication related to induced abortions in female are presented in Table 2.

In this study the most common complication related to induced abortions was infections, which occurred 7,562 times. In present study the most common infection related to induced abortions was endometritis (21.6%, 95% CI, 21.1-22.1), cervicitis (17.8%, 95% CI, 17.4-18.2), vaginal cuff infections (16.3%, 95% CI, 15.9-16.7), peritonitis (12.3%, 95% CI, 11.9-12.7) and pelvic abscess (10.7%, 95% CI, 11.9-12.7), followed by adnexa utery (8.1%, 95% CI, 7.8-8.4), parametritis (6.7%, 95% CI, 6.4-7.0), salpingitis (5.1%, 95% CI, 4.8-5.4), sepsis (1.3%, 95% CI, 1.2-1.4) and other (0.2%) infections. Distribution of specific types of abortion-related infections in female from the Eastern and Southern Ukrainian-Russian military conflict regions, 2022-2024 are presented in Table 3.

Table 4 presents factors associated with the occurrence of complications following induced abortion in female from the Eastern and Southern Ukrainian-Rus-

Table 3. Distribution of specific types of abortion-related infections (n=7,562) in female from the Eastern and Southern Ukrainian-Russian military conflict regions, 2022-2024

Type of infection	n	%	95% CI
Endometritis	1,567	21.6	21.1 - 22.1
Cervicitis	1,346	17.8	17.4 - 18.2
Vaginal cuff infections	1,233	16.3	15.9 - 16.7
Peritonitis	927	12.3	11.9 - 12.7
Pelvic abscess	807	10.7	10.3 - 11.1
Adnexa utery	612	8.1	7.8 - 8.4
Parametritis	503	6.7	6.4 - 7.0
Salpingitis	387	5.1	4.8 - 5.4
Sepsis	98	1.3	1.2 - 1.4
Other	16	0.2	0.15 - 0.25
Total	7,562	100.0	

CI, confidence interval
Source: compiled by the authors of this study

sian military conflict regions, 2022-2024. The multiple logistic regression analyses showed that age ≥ 50 years (adjusted odds ratio (aOR)=1.97 (95% Confidence Interval (CI), 1.57-2.88), abortion approach (aOR= 4.31, 95% CI, 1.92-10.81), gestational age (aOR=2.58 (95% CI, 1.65-4.04)), prior cesarean delivery (aOR=1.53 (95% CI, 1.27-1.89)), presence of a bleeding disorder (aOR=1.84, 95% CI, 1.18-2.79), fetal demise before the abortion (aOR = 2.91, 95% CI, 2.15, 3.82), lack of healthcare facilities (aOR= 2.65, 95% CI, 1.22-5.77), lack of essential medication (aOR= 4.31, 95% CI, 1.91-10.8), lack of personnel and equipment (aOR= 4.28, 95% CI, 1.83-10.2), and surgical inexperience (aOR= 2.61, 95% CI, 1.21, 5.73) were significantly with complications related to induced abortions in female from the Eastern and Southern Ukrainian military conflict regions. Additionally, logistic regression analysis was performed to assess the association between endometriosis and induced abortion events, adjusting for confounding variables. After adjusting for confounding variables, women with a history of induced abortion had 2.27-fold increased odds of experiencing an endometriosis (OR: 2.27; 95% CI: 1.79 - 2.92; P < 0.001). Also, infertility was associated with induced abortion in logistic regression analysis. The aOR was 5.04 (95% CI, 1.16–21.83).

DISCUSSION

The results presented in this cohort study based on multicentre combined retrospective and prospective surveillance data for women who had an induced abortion in Eastern and Southern Ukrainian-Russian military conflict regions between 2022 and 2024. To our knowledge there are no similar studies showing the relationship between of complications and adverse outcomes related to induced abortion in female and military conflicts. This study expands upon the previous reports on infection after induced abortion in Ukraine [1, 10-13] and is the first study to publish of complications and adverse outcomes related to induced abortion in female from the military conflict regions.

The reported incidence of complications related to induced abortion varies between studies. According to the literature, complications occur in approximately 2% of induced abortions and a minority of these require hospitalization [4-6, 14]. In our study the incidence of complications and adverse outcomes related to induced abortion among women was 74.9%.

Induced abortions in female can be performed in surgically and medically methods. However, there has been little research directly comparing dilation and evacuation (D&E) procedure, vacuum aspiration and medical methods of induced abortions. Grossman D, et al. [15] reported that women undergoing medical induction with this method were significantly more likely than those undergoing D&E to have a complication. This study found that women undergoing induced abortion with D&E were significantly more likely than undergoing medical induction method to have a complication. The frequent of complications related to induced abortion performed by a dilation and evacuation procedure, vacuum aspiration and medical abortions were 57.9%, 35.7% and 6.4%, respectively.

According to the literature, possible complications of induced abortion include ongoing pregnancy, incomplete abortion, hemorrhage, ectopic pregnancy, infection, drug reaction, cardiovascular collapse, deep vein thrombosis, disseminated intravascular coagulation, hematometra, uterine rupture, and death [2, 5, 6]. In our study the most common of complications

Table 4. Factors associated with the occurrence of complications following induced abortion in female from the Eastern and Southern Ukrainian-Russian military conflict regions, 2022-2024

Variable	All patients (n=14,196)	Complications				p-value
		Yes (n=10,630)		No (n=3,566)		
		n	%	n	%	
Age category, years						<0.001
14-20	3,449	1,928	18.1	1,521	42.7	
21-35	3,668	2,367	22.3	1,301	36,5	
36-49	3,502	3,054	28.7	448	12.6	
≥ 50	35,77	3,281	30.9	296	8.3	
Abortion approach						<0.0012
medical	2,634	684	6.4	1,950	54.7	
vacuum aspiration (suction curettage)	4,531	3,796	35.7	735	20.6	
dilation and evacuation procedure	7,031	6,150	57.9	881	24.7	
Gestational age, weeks						<0.001
4-5	1,243	116	1.1	1,127	31.6	
6-7	3,491	2,366	22.3	1,125	31.5	
8-9	4,784	4,026	37.9	758	21.3	
10-12	4,678	4,122	38.7	556	15.6	
Prior cesarean delivery	1,657	1,410	13.3	247	6.9	<0.001
Presence of a bleeding disorder	2,094	1,898	17.9	196	5.5	<0.001
Fetal demise before the abortion	676	621	5.8	55	1.5	<0.001
Lack of healthcare facilities	4,895	4,439	41.8	456	12.8	<0.001
Lack of essential medication	9,840	8,796	82.7	1,044	29.3	<0.001
Lack of personnel and equipment	5,398	4,765	44.8	633	17.8	<0.001
Surgical inexperience	2,990	2,401	22.6	589	16.5	<0.03

Source: compiled by the authors of this study

related to induced abortion was infections (71.1% of all cases), cervical injury (6.6%), incomplete abortion (5.4%), hemorrhage (5.2%), uterine perforation (4.9%), post-abortal hematometra (2,6%), ectopic pregnancy (1.9%), ongoing pregnancy (1,2%), disseminated intravascular coagulation (0.6%), and drug reaction (0.4%).

Upadhyay UD, et al [5] reported that uterine hemorrhage is often caused by retained products of conception (incomplete abortion) but can also result from uterine perforation, or cervical laceration. Injury to the uterus or cervix can occur during induced abortions [2]. Kerns JL, et al [16] and Wall LL, et al [17] may involve injury to adjacent organs, such as the bladder or rectum.

Among the studies reviewed, the incidence of uterine perforation related to induced abortion in female was rare. Uterine perforation rate varied from 0.2% in US [18] and Canada [19], to 0.5% in the Viet Nam [20]. The studies with the higher rates of uterine perforation included physicians with less experience of doing surgical induced abortion. However, no cases of uterine perforation were reported in the US, despite the fact that most of the surgical abortion procedures were performed by resident physicians in training [21]. According to the literature, the risk factors of uterine perforation include induced abortion in the second trimester and uterine scarring from prior cesarean section [16]. In our study incidence rate of uterine perforation related to induced abortion was 4.9%.

In present study infections are of the most of complications related to induced abortion. According to the literature, infections related to induced abortion are most commonly caused by retained products of conception, which become a nidus for infection [17]. Aronoff DM, et al [22], Haddad LB, et al [23], and Salmanov AG, et al [24] reported that infections are especially common following unsafe abortions involving nonsterile instruments or equipment. Additionally, contamination of environmental surfaces in healthcare facilities are as a reservoir for bacteria to patients and Inadequate hand hygiene in healthcare workers may result in transmission of pathogens [24]. The reported incidence of infections related to induced abortion varies between studies. Charonis

and Larsson [25] reported a frequency of 2.4% for infectious complications from medical abortions and 4.9% from surgical abortions. A previous study in Ukraine conducted in 2021 [1] and 2024 [13] found that incidence of infection cases related to induced abortions in female were 25.9% and 27.4%, respectively. In this study incidence of infections related to induced abortions was 71.1%. The most common infection related to induced abortions was endometritis (21.6%), cervicitis (17.8%), vaginal cuff infections (16.3%), peritonitis (12.3%) and pelvic abscess (10.7%), followed by adnexa utery (8.1%), parametritis (6.7%), salpingitis (5.1%), sepsis (1.3%) and other (0.2%) infections.

Studies identified several factors that were associated with an increased risk of complications and adverse outcomes related to induced abortion. The most common risk factors of complications related to induced abortion in the literature are as follows gestational age, history of cesarean delivery, maternal age, fetal demise before the abortion, surgical inexperience, unsafe (illegal) abortion, and presence of a bleeding disorder [2, 5, 16, 17]. In our study the multiple logistic regression analyses showed that increased maternal age ≥ 50 years (aOR=1.97), surgical abortion approach (aOR= 4.31), increased gestational age (aOR=2.58), prior cesarean delivery (aOR=1.53), presence of a bleeding disorder (aOR=1.84), fetal demise before the abortion (aOR = 2.91), lack of healthcare facilities (aOR= 2.65), lack of essential medication (aOR= 4.31), lack of personnel and equipment (aOR= 4.28), and surgical inexperience (aOR= 2.61) were significantly with complications related to induced abortions in female from the Eastern and Southern Ukrainian military conflict regions.

Several studies have described the impact of complications and adverse outcomes related to induced abortion in female on infertility and endometriosis. In this study after adjusting for confounding variables, women with a history of induced abortion had 2.27-fold increased odds of experiencing an endometriosis (OR: 2.27, P < 0.001). Also, infertility was associated with induced abortion in logistic regression analysis. The aOR was 5.04 (95% CI, 1.16–21.83).

The war against Ukraine has put most pregnant women in the Eastern and Southern Ukrainian-Russian military conflict regions, intended parents in impossible positions. Experience shows that access to women reproductive health services, such as safe induced abortion, remains a daily concern in a war situation. Many pregnant women in military conflict regions may need health care and assistance on a daily basis or when complications with pregnancy occur. Inaccessibility of medical facilities, shortage or absence of equipment, healthcare personnel and medical products are scarce or unavailable, create a risk to the health of pregnant women.

STUDY STRENGTHS AND LIMITATIONS

This is the first study that focused on complications and adverse outcomes related to induced abortion in female from the military conflict regions. One of the strengths in this study is the size of the study cohort group from the Eastern and Southern Ukrainian-Russian military conflict regions. A total of 14,196 induced abortions were included, which gave a fairly accurate depiction of the incidence of complication and adverse outcomes related to induced abortions in female.

One limitation is that some female did not contact the gynecological clinic for their post-abortal problems until after 30 days, which leads to an underestimation in the number of complications and adverse outcomes related to induced abortions. Furthermore, some patients may be missing in our statistics because they sought medical care at hospitals other than those included in our study. However, there are few private gynecological clinics in the Eastern Ukrainian military conflict regions, so it is likely that most complications are captured in this study. Another limitation our study is that various physicians were involved in categorizing the complications and adverse outcomes related to induced abortions in female. This may have resulted in misdiagnosis and might have been categorized differently.

CONCLUSIONS

This study findings demonstrate the high rate of complications related to induced abortion in the Ukrainian-Russian military conflict regions. The most common risk factors of complications related to induced abortion was increased maternal age ≥ 50 years, surgical abortion approach, increased gestational age, prior cesarean delivery, presence of a bleeding disorder, fetal demise before the abortion, lack of healthcare facilities, lack of essential medication, lack of personnel and equipment, and surgical inexperience. The ongoing war in Ukraine has significantly impacted access to reproductive health services – such as safe induced abortion. Healthcare facilities across the Eastern and Southern Ukrainian-Russian military conflict regions are depleted and under immense strain, with war having led to a lack of facilities, essential medication, personnel and equipment. This has led to a decline in the quality of healthcare services and main reason for the high rate of complications and adverse outcomes related to induced abortion in female from the military conflict regions.

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CONFLICT OF INTEREST
The Authors declare no conflict of interest

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