

Management of Medical Termination of Pregnancy (MToP) up until the 7th week of gestation in the Czech Republic

SLUNSKA P.¹, HANACEK J.², FANTA M.³, SEHNAL B.⁴, GERYCHOVA R.⁵, HOLA A.², ZDENKOVA A.³, NEUMANNOVA H.⁴, DZIAKOVA M.⁵, LUBUSKY M.¹

¹ Department of Obstetrics and Gynecology, Palacky University Olomouc, Faculty of Medicine and Dentistry, University Hospital Olomouc, Czech Republic

² The Institute for the Care of Mother and Child, Charles University in Prague, Third faculty of Medicine, Czech Republic

³ Department of Gynecology and Obstetrics, Charles University in Prague, First faculty of Medicine, General University Hospital in Prague, Czech Republic

⁴ Department of Gynecology and Obstetrics, Charles University in Prague, First faculty of Medicine, Hospital Na Bulovce, Prague, Czech Republic

⁵ Department of Gynecology and Obstetrics, Masaryk University, Faculty of Medicine, University Hospital Brno, Czech Republic

Objective: In the Czech Republic (CR), it is possible, to carry out Medical Termination of Pregnancy (MToP) in the 1st trimester since June 2014, in case a woman submits a written request for it and in case the ultrasound examination confirms an **intrauterine singleton prosperous pregnancy, between day 42 and 49 of gestation, crown-rump length (CRL) of the embryo 2-9 mm**. The aim of the study is to analyze the management of MToP up until the 7th week of gestation in five centres in the CR.

Methods: Multicenter cohort (prospective) study. In 2014-2016, a total of **1820** pregnant women requested MToP. The diagnosis of an intrauterine singleton prosperous pregnancy was set by transvaginal ultrasound, CRL 2-9 mm. MToP was carried out by combination of mifepristone (600 mg orally) and misoprostol (400 mcg orally) within 48 hours. MToP follow up (exclusion of ongoing pregnancy) after 2-3 weeks was carried out by transvaginal ultrasound as well.

Results: In **11.0%** of women (201/1820) who requested MToP, CRL > 9 mm, unprosperous, multiple or ectopic pregnancy was diagnosed. In the remaining **1619** women MToP was carried out, but in 221 cases (13.7%) at least one additional pre-first visit was needed before the diagnosis of intrauterine singleton prosperous pregnancy CRL 2-9 mm could be established, in 19 cases (1.2%) two pre-first visits and in 5 cases (0.3%) even three. Gestational age was 42-49 days (average 47.1, median 47), the women were 14-47 years of age (average 30.7, median 30). In **20.8%** of women (336/1619) MToP follow up was missed and of the remaining **1283** women, ongoing pregnancy (MToP failure) was diagnosed in **1.6%** (21/1283), incomplete abortion in 6.5% (83/1283) and complete abortion in 91.9% (1179/1283). A subsequent surgical intervention was carried out in **7.4 %** of women (95/1283).

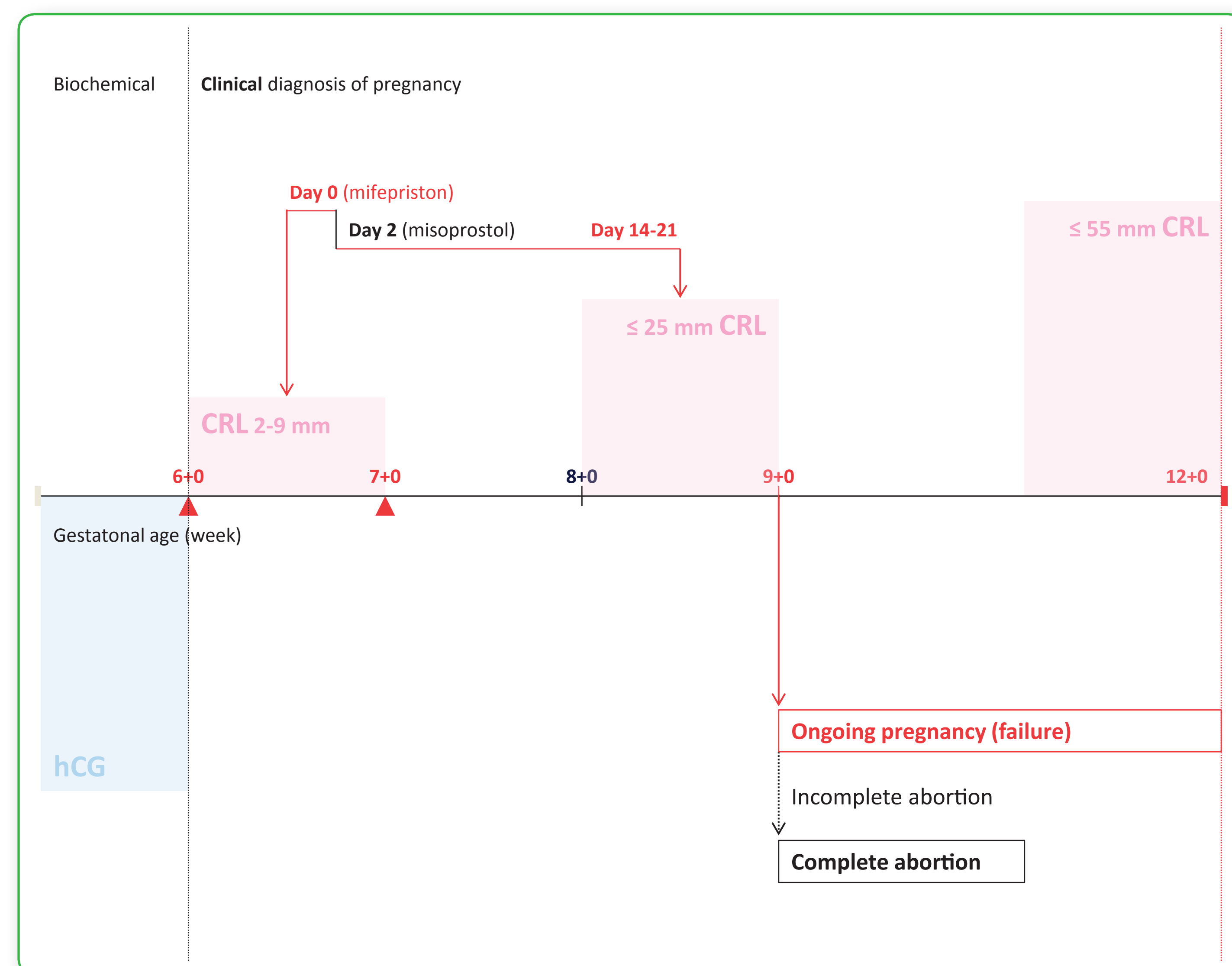
Conclusion: A medical facility performing MToP in the 1st trimester should develop its own **methodology** in accordance with the legislation in force, Summaries of Product Characteristics, and recommendations of professional associations. The methodology should also include a method of **evaluation of the result** and **management**. The subsequent **surgical intervention** should only be performed in indicated cases. The main goal of MToP follow up is to exclude ongoing pregnancy (MToP failure), and the patient should be informed in detail about the risks involved and possibilities of their solution, it is necessary to obtain an informed consent.

	2014-2016											
	Centre 1		Centre 2		Centre 3		Centre 4		Centre 5		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Request for "Medical Termination of Pregnancy"	223		385		481		435		296		1820	
Pregnancy												
biochemical												
of unknown location												
of unknown count												
unprosperous	0	0.0%	2	0.5%	3	0.6%	2	0.5%	1	0.3%	8	0.4%
clinical												
intrauterine												
singleton												
prosperous												
CRL 2-9 mm	208	93.3%	346	89.9%	415	86.3%	381	87.6%	269	90.9%	1619	89.0%
CRL > 9 mm	10	4.5%	27	7.0%	51	10.6%	42	9.7%	17	5.7%	147	8.1%
unprosperous	5	2.2%	6	1.6%	6	1.2%	6	1.4%	4	1.4%	27	1.5%
multiple												
prosperous	0	0.0%	2	0.5%	3	0.6%	2	0.5%	3	1.0%	10	0.5%
unprosperous	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ectopic (unprosperous)	0	0.0%	2	0.5%	3	0.6%	2	0.5%	2	0.7%	9	0.5%
1st visit	208		346		415		381		269		1619	
Pre-first visit												
1x	59	28.4%	36	10.4%	45	10.8%	42	11.0%	39	14.5%	221	13.7%
2x	4	1.9%	1	0.3%	3	0.7%	2	0.5%	9	3.3%	19	1.2%
3x	1	0.5%	1	0.3%	1	0.2%	1	0.3%	1	0.4%	5	0.3%
Gestational age (days)												
Minimum	42		42		42		42		42		42	
Maximum	49		49		49		49		49		49	
Average	45.6		48.1		47.2		47.3		46.4		47.1	
Median	45		48		47		47		46		47	
Age of woman (years)												
Minimum	16		14		16		16		14		14	
Maximum	44		41		46		47		45		47	
Average	29.4		28.5		33.5		30.6		30.2		30.7	
Median	29		28		33		30		29		30	
Mifepristone - 3 tablets (600 mg)												
2nd visit (36-48 hours after mifepristone)	206	99.0%	342	98.8%	410	98.8%	376	98.7%	266	98.9%	1600	98.8%
Misoprostol - 1 tablet (400 mcg)												
3rd visit (follow-up 2-3 weeks later)	193	92.8%	271	78.3%	307	74.0%	282	74.0%	230	85.5%	1283	79.2%
Ongoing pregnancy	6	3.1%	4	1.5%	4	1.3%	3	1.1%	4	1.7%	21	1.6%
repeated Medical abortion	1		0		0		0		0		1	
Surgery	6		4		3		3		4		20	
Prenatal care	0		0		1		0		0		1	
Incomplete abortion	4	2.1%	16	5.9%	35	11.4%	14	5.0%	14	6.1%	83	6.5%
Expectant management	0		6		0		0		0		6	
additional misoprostol	2		0		0		0		0		2	
Surgery	2		10		35		14		14		75	
Complete abortion	183	94.8%	251	92.6%	268	87.3%	265	94.0%	212	92.2%	1179	91.9%

Table

Medical Termination of Pregnancy (MToP) up until the 7th week of gestation - material, methods and results in five centres in the Czech Republic.

1 - University Hospital Olomouc, 2 - Hospital Na Bulovce in Prague, 3 - The Institute for the Care of Mother and Child in Prague, 4 - General University Hospital in Prague, 5 - University Hospital Brno



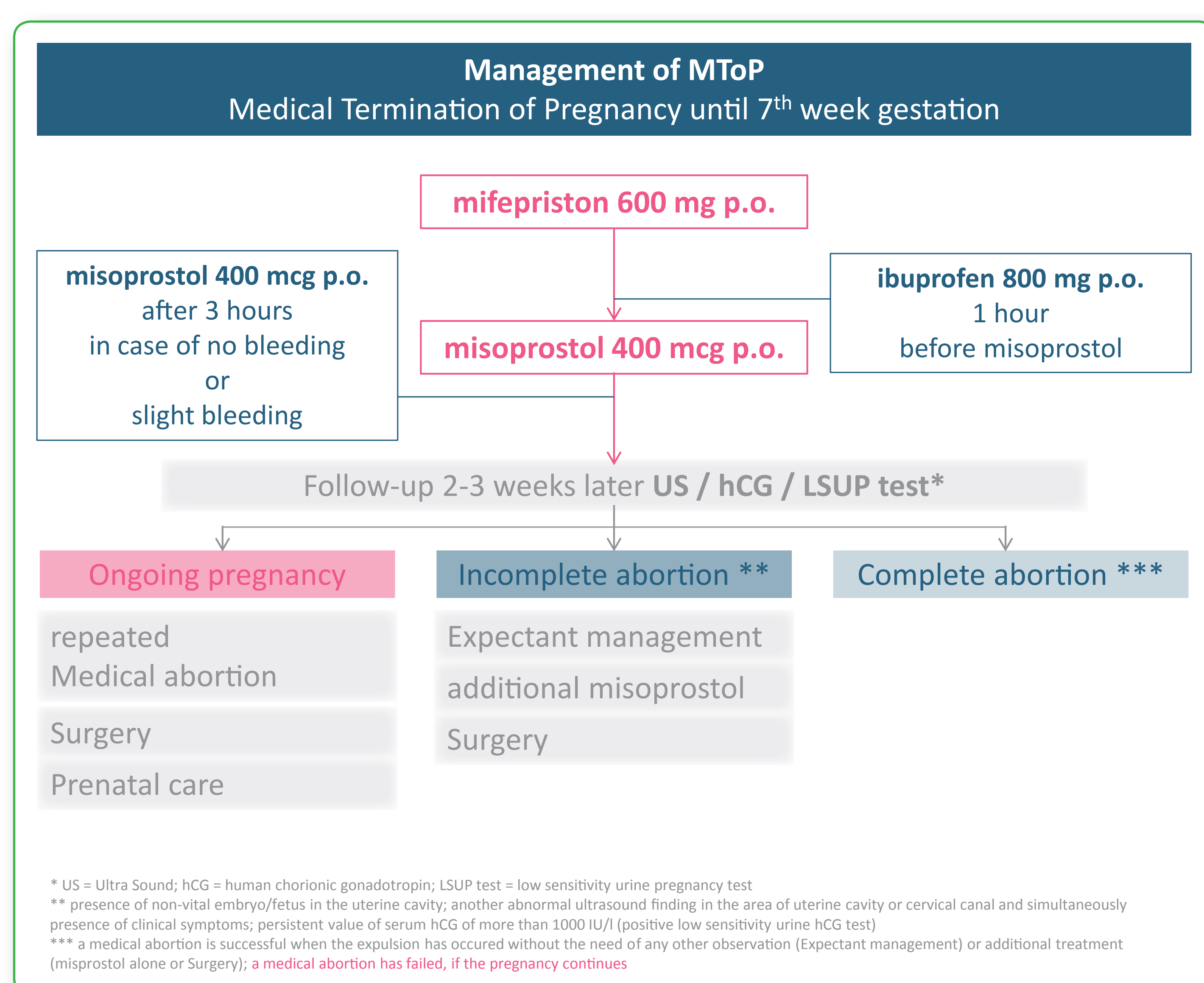
Scheme 1

Medical Termination of Pregnancy (MToP) up until the 7th week of gestation - diagnosis of pregnancy and management of the procedure according to gestational age

Setting the diagnosis of an **intrauterine singleton prosperous pregnancy** by ultrasound examination, and the dating of pregnancy according to the crown-rump length (CRL) of the embryo. At **CRL = 2 mm**, it is possible to prove a prosperous pregnancy (presence of blood circulation pulsation), **CRL = 9 mm** corresponds to the 49th day of secondary amenorrhea, **CRL = 25 mm**, to the 63th day, and **CRL = 55 mm**, to the 84th day.

The main goal of the follow up ultrasound examination is to exclude ongoing pregnancy, because in case the pregnancy continues, it is possible to proceed, depending on the actual gestational age and the patient's wish, in the following way:

- **repetition of the pharmacological method – MToP** (up until the 9th week of gestation, CRL ≤ 25 mm),
- **surgical method - SToP** (up until the 12th week of gestation, CRL ≤ 55 mm),
- in case **the patient decides to continue the pregnancy**, it is necessary to inform the patient in detail about the potential risk of abnormal fetus development (approx. 1% of cases, damage to central nervous system and/or extremities have been reported), it is necessary to obtain the **INFORMED CONSENT** from the patient, it is recommended to make detailed fetal anomaly scan by ultrasound.



Scheme 2

Medical Termination of Pregnancy (MToP) up until the 7th week of gestation - evaluation of the result and management

EVALUATION OF THE RESULT

- **"Ongoing pregnancy"** - a medical abortion has failed, if the pregnancy continues
- **"Incomplete abortion"** - presence of a non-vital embryo/fetus in the uterine cavity; another abnormal ultrasound finding in the area of uterine cavity or cervical canal, and simultaneously presence of clinical symptoms; persistent value of human chorionic gonadotropin (hCG) in serum of more than 1000 IU/l (positive low sensitivity urine hCG test)
- **"Complete abortion"** - a medical abortion is successful when the expulsion has occurred without the need of any other observation (Expectant management) or additional treatment (misoprostol alone or Surgery)

MANAGEMENT

- **"Ongoing pregnancy"** - repetition of the pharmacological method – MToP (up until the 9th week of gestation, CRL ≤ 25 mm), or surgical method – SToP (up until the 12th week of gestation, CRL ≤ 55 mm); continuing the pregnancy – Prenatal care
- **"Incomplete abortion"** - Expectant management or additional misoprostol or Surgery