

Additional file 3: WHO-MCS-A and adapted WHO-MCS-A severity classification

Table additional file 3: Criteria for hierarchal severity classification of abortion-related complications according to WHO-MCS-A with adaptations done in AMoCo (adapted from Qureshi et al. BMJ GH 2021(1))

Severe Maternal Outcomes				
Death	WHO Near-Miss Cases*	Potentially-life threatening complications	Moderate	Mild
Death	Organ dysfunction	Conditions	Conditions	Signs and symptoms on initial assessment
WHO-MCS -A Classification	Cardiovasc	Severe haemorrhage <i>Blood loss greater than 1000mL, and/or Any bleeding with hypotension, and/or Any bleeding requiring blood transfusion</i>	Severe bleeding <i>At least one of the 3 items: 1) Heavy bright red vaginal bleeding (with or without clots), 2) Blood-soaked pads/towels/clothing, 3) pallor</i>	Vaginal Bleeding (including product of conception)
	Respiratory	Severe systemic infection <i>- Presence of fever (body temperature > 38 degrees Celsius) and - Confirmed or suspected infection (eg. septic abortion, endometritis, chorioamnionitis, generalized peritonitis) and - at least one of the following signs: 1. new/worsened altered mentation, 2. respiratory rate $\geq$ 22, 3. systolic blood pressure $\leq$ 100 mm Hg</i>	Abdominal syndrome. <i>At least one of the 4 items: 1) Abdominal pain/cramping and nausea, vomiting, 2) distended/tense/hard abdomen 3) Shoulder pain 4) Decreased bowel sounds, rebound, tenderness</i>	Cervix open
	Renal	Uterine perforation <i>Rupture of uterus confirmed by laparotomy</i>	Uterine Infection <i>At least one of the 2 items: 1) Chills, fevers, sweats, 2) Foul smelling vagina discharge +/- History of interference with pregnancy</i>	Abnormal vital signs <i>based on temperature, heart rate, systolic/diastolic blood pressure, and respiratory rate</i>
	Hematologic/Coagulation <i>$\geq$ 5 blood units transfused</i>			Uterine tenderness
	Neurologic			Abnormal mental status <i>Agitated, lethargic, comatose</i>
	Hepatic			Abnormal abdominal examination <i>Abdominal pain/cramping, nausea, vomiting, Rebounding/guarding, Distended, decreased bowel sounds, tense/hard, tenderness on palpation</i>
	Uterine			Abnormal appearance <i>Sick-looking, pallor, jaundice, clammy</i>
				Cervical Motion Tenderness
				Foul smelling vaginal discharge
				Evidence of foreign body
				Adnexal mass

Severe Maternal Outcomes				
	Death	WHO Near-Miss Cases*	Potentially-life threatening complications	Mild
	Death	Organ dysfunction	Conditions	Signs and symptoms on initial assessment
AMOCO adaptations for Sub-Saharan Africa		Hematologic/Coagulation: ≥2 blood units transfused (instead of ≥5 units)	Severe haemorrhage: <i>Same definition with</i> - hypotension = SBP <100 mm Hg - Adding bleeding + Hb < 4 g/dL	
			Adding Generalized peritonitis - T°C>38.5°C and - Abdominal guarding (contracture = hard abdomen like roc) or rebound +/- ileus (decreased/no bowels sound, tenderness)	
			Adding Other intra-abdominal perforations <i>Evidence of bladder, rectum, bowels mechanical perforation confirmed by laparotomy or examinations</i>	

* Detailed criteria are in the WHO near-miss approach guidelines(2)

WHO-MCS-A: WHO Multi-Country Study on Abortion (1)

References:

1. Qureshi Z, Mehrtash H, Kouanda S, Griffin S, Filippi V, Govule P, et al. Understanding abortion-related complications in health facilities: results from WHO multicountry survey on abortion (MCS-A) across 11 sub-Saharan African countries. *BMJ Glob Heal* [Internet]. 2021 Jan 29 [cited 2021 Feb 1];6(1):e003702. Available from: <https://gh.bmj.com/lookup/doi/10.1136/bmjgh-2020-003702>
2. World Health Organization. The WHO near-miss approach for maternal health [Internet]. WHO. Geneva; 2011. Available from: [www.who.int/reproductivehealth%0Ahttp://apps.who.int/iris/bitstream/10665/44692/1/9789241502221_eng.pdf](http://apps.who.int/iris/bitstream/10665/44692/1/9789241502221_eng.pdf)