

Additional file 1

Information on donated equipment, drugs and supplies with justification for donation and comments

The equipment, drugs and supplies provided to 61 hospitals have been involved in efforts to enhance obstetric and neonatal care, especially given the targeting of electricity supplies to many hospitals by Russian forces. One important example included the availability of a portable and rechargeable battery-operated ultrasound scanner during labour and delivery; a mode of treatment which had not been available in most hospitals prior to the conflict. The donation of head torches to enable surgical procedures in the absence of electricity was also a consideration.

Another example involves the prevention/management of postpartum haemorrhage (PPH) which is provided in Ukraine according to Ministry of Health Order 676, from 31.12.2004, which has resulted in a significant reduction in PPH during last years in Ukraine. However, disruption of the cold chain for oxytocin, a medicine used for the active management of the third stage of labour , and a shortage of blood products can increase the risk of PPH death during the war. The provision of Misoprostol and the uterine tamponade device (Ellavi) were hopefully helpful in managing some cases of PPH.

The skin-to-skin wraps were important in protecting newborn babies from hypothermia in situations where incubators relying on electricity could be prevented from working. Special rechargeable thermal pads to prevent hypothermia and its adverse effects on blood coagulation during and immediately after Caesarean section were also provided.

Number	Equipment, drugs, and medical supplies	Justification for donation
1	61 inverter-based generators 1 to 2.2 KW and surge protectors	To ensure electric inputs were safe for medical equipment. This was a priority because of the deliberate targeting of electricity during military attacks.
2	61 portable battery-operated ultrasound scanners	Ultrasound scanning during labour can be extremely useful to ensuring a good outcome for mothers and babies. Existing systems in Ukraine rely on ultrasound examinations performed solely by certified specialists using high-technology ultrasound equipment, which is nearly impossible to find in maternity wards operating 24 hours each day and

		necessitates transferring labouring women to another department of the hospital for examination. This process can be exceedingly challenging and potentially hazardous, especially if the hospital is or could be under attack at any moment. Furthermore, only portable, rechargeable battery-operated scanners can ensure necessary examinations when deliveries occur in shelters from bombing.
3	392 battery-operated doppler ultrasound probes for fetal heart rate (FHR) monitoring	To engage mothers (and partners when present) in labour to undertake fetal monitoring by themselves
4	Essential emergency drugs: Misoprostol and Glyceryl Trinitrate Sprays	Misoprostol was provided for managing postpartum haemorrhage and Glyceryl Trinitrate Sprays for perinatal heart failure and uterine relaxation when fetal distress related to excessively strong uterine contractions.
5	Urinalysis sticks	To help identify possible infection or pre-eclampsia
6	1180 Kiwi Vacuum delivery systems (with traction monitors)	To enable urgent delivery in the second stage of labour hopefully in a proportion of cases avoiding the risks of Caesarean section.
7	210 surgical head torches	For when electricity became interrupted
8	321 portable battery-operated blood pressure monitoring systems	Important in managing preeclampsia and shock
9	62 pulse oximeters with reusable probes	For use on both babies and mothers with medical problems and hypoxaemia
10	62 lactometers with test strips	Cord blood sampling for lactic acid for predicting intrapartum hypoxia
11	500 skin-to-skin wraps for newborn babies and 420 thermal blankets for mothers and babies used in mountain rescue were provided along with 20 rechargeable thermal pads/mattresses usually included in cave rescue.	Because of damage to heating systems and unheated shelters needed when shelling was occurring, the protection of mothers and newborn babies from hypothermia was essential.
12	710 Ellavi Uterine Balloon Tamponade devices	To improve postpartum haemorrhage management