**Table S3:** Adjusted confounders and main findings extracted from included studies in East Africa, from January 2000-December 2019.

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| **Author** | **Adjusted confounders** | **Main findings** |
| Cross-sectional studies | | |
| Byaruhanga R(1) | Parity, preterm delivery, nighttime delivery, rupture of membranes `24hrs and location of newborns in theatre | No skin to skin contact comprised 87% of hypothermic newborns .The mean birth weight was 3218g. Low birth weight newborns constituted 9/86 (10% ) among hypothermic newborns. |
| Hayelom G /(2) | - | Of the1152 live births, there were 68 deaths (63 per 1000 live births). Two thirds of deaths were attributable to prematurity 23 (34%) or asphyxia 21 (31%). In the early neonatal period, 37% were due to prematurity. |
| Abayneh G /(3) | Residence, place of delivery, gestational age, birth weight in grams, ANC follow-up, mode of delivery, body temperature, hypoglycemia, neonatal sepsis, peri-natal asphyxia, and RDS | Peri-natal asphyxia, instrumental delivery and early onset neonatal sepsis |
| Birhanu W/(4) | Age of neonate ,birth weight ,gestational age, skin to skin contact, early initiation of breast feeding, PR received ,obstetric complication during pregnancy, pregnancy type, and time of delivery | Preterm delivery, age of Neonate ≤24 h old, no skin to skin contact ,delayed initiation of breastfeeding and resuscitation at birth were significantly associated |
| Gebresilasea G/(5) | Weight of the neonate, baby breastfed within 1 hour, bathed within 24 hour, Season, obstetric complication, residence, time of delivery, number of ANC visits | Admission weight below 2500 gm., delay in initiation of breastfeeding, early bathing, admissions during cold season and presence of obstetrical complication(s) during pregnancy/labor were factors significantly associated with hypothermia. |
| Hagos T/(6) | Residence, bathing in 24 h, skin to skin contact, initiation of breastfeeding, CPR, complication, APGAR at 5 min, type of pregnancy, mode of delivery, time of born, gestational age and Wight | Delayed initiation of breastfeeding ,LBW , preterm  , low APGAR score, skin to skin contact, night time delivery , and bathed within 24 h were independent risk factors of neonatal hypothermia. |
| Wubet A /(7) | Skin to skin contact, Wearing cap, Proper wrapping, Early breast feeding, Warm transportation, Obstetric complication, Birth weight (Kg), Gestational age (weeks), and Neonatal health problem | No skin to skin contact, no wearing cap, no warm intra-facility transportation, born to mothers having obstetric complication, prematurity and neonatal health problem were significantly associated with hypothermia. |
| Mekonnen T/(8) | - | 1316 neonates were admitted in the last three years. 300 died. 93 (31%) delivered prematurely, 89 (29.7%) admitted for diagnosis of sepsis and 46 (15.3%) were those admitted due to low birth weight |
| Switchenko N/(9) | - | 55 (60%) had persistent hypothermia. 7(13 %) of the neonates who had persistent hypothermia died, 18 infants (14%) had recorded hyperthermia. Although persistent hypothermia was not associated with death (p=0.09). |
| Tewodros S/(10) | Birth weight, CPR, problem of neonate, GA, early Initiation of BF, skin-to-Skin contact, and time of delivery | Low birth weight, no skin to skin contact, night time delivery, delayed initiation of breast feeding and problems of the neonates were significantly associated with hypothermia. |
| **Cohort studies** | | |
| Alison Talbert /(11) | - | Mortality rates were higher in children with hypothermia (4/12, 33%) than those without (121/655, 18%), the timing of hypothermia did not coincide with clinical deterioration. |
| **Case control study** | | |
| Bergstrom A/(12) | - | Bathing of newborns in the first hour after delivery resulted in a significantly increased prevalence of hypothermia. |

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