

# Reference Values for Umbilical Artery Lactate by Mode of Delivery and Gestational Age

## Background

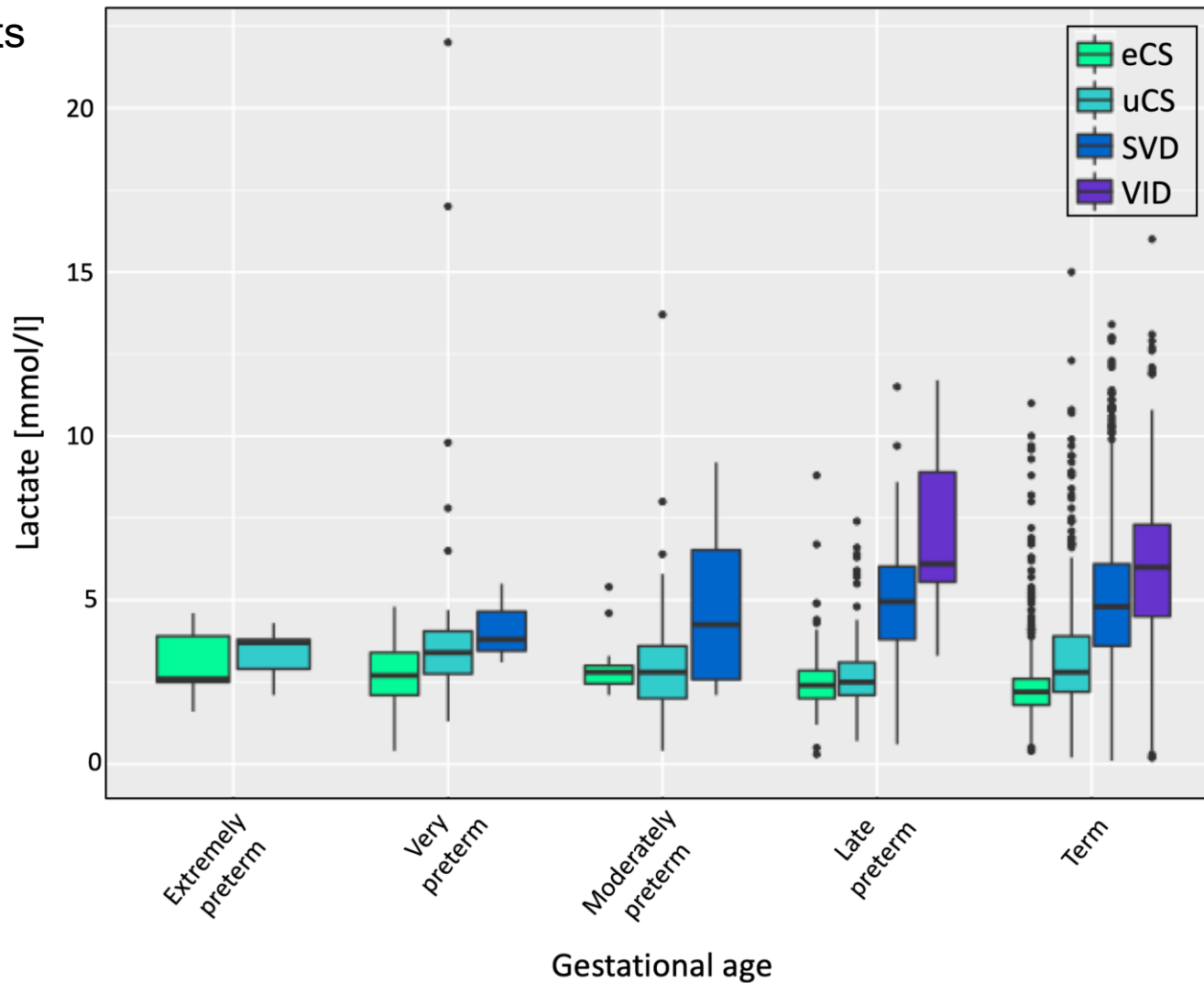
- Umbilical artery lactate is useful in predicting neonatal morbidity
- Data on normal values are limited
- Objective: Provide reference ranges of umbilical artery lactate values across the combination of gestational age and mode of delivery

## Methods

- Population: liveborn infants born between 23 and 42 completed weeks gestation
- Extraction of lactate, base deficit (BD) and pH from arterial cord blood between June 2018 and November 2020

# Results

N=1'353 infants



eCS = elective CS  
uCS = unplanned CS  
SVD = spontaneous vaginal delivery  
VID = vaginal instrumental delivery

- Mode of delivery and gestational age contribute to umbilical artery lactate values
  - Highest values occurring in vaginal instrumental deliveries
  - Lowest values in elective CS
  - Higher values in term infants
- Detailed percentiles created for clinical use

# Thank you for your attention!

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Gaertner VD, Bassler D, Zimmermann R, Fontijn J  
*Neonatology*, 2021

