

# RISK OF HYPOGLYCEMIA IN PERINATAL ACIDOSIS: RETROSPECTIVE EVALUATION OF A ROUTINE SCREENING PROCEDURE

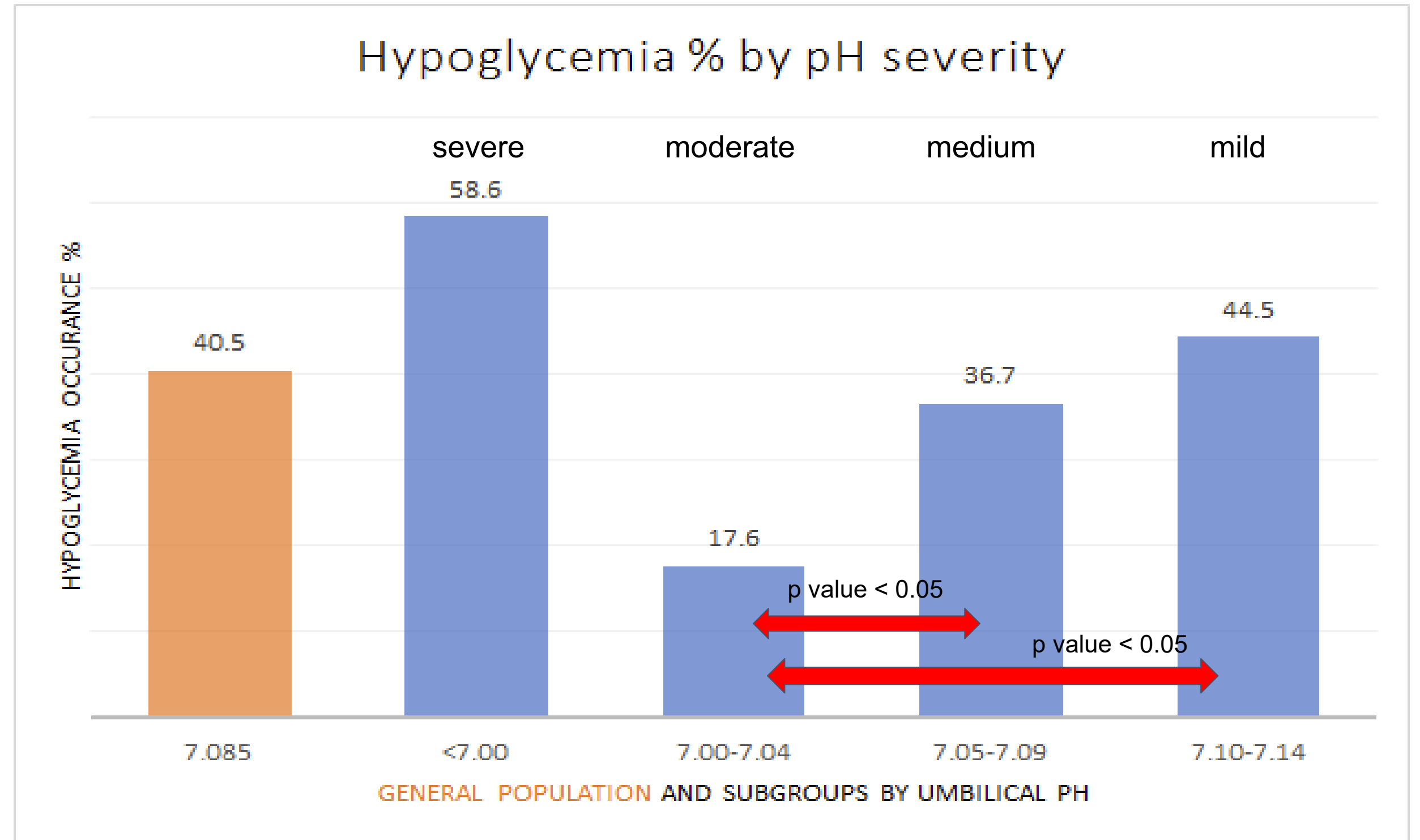
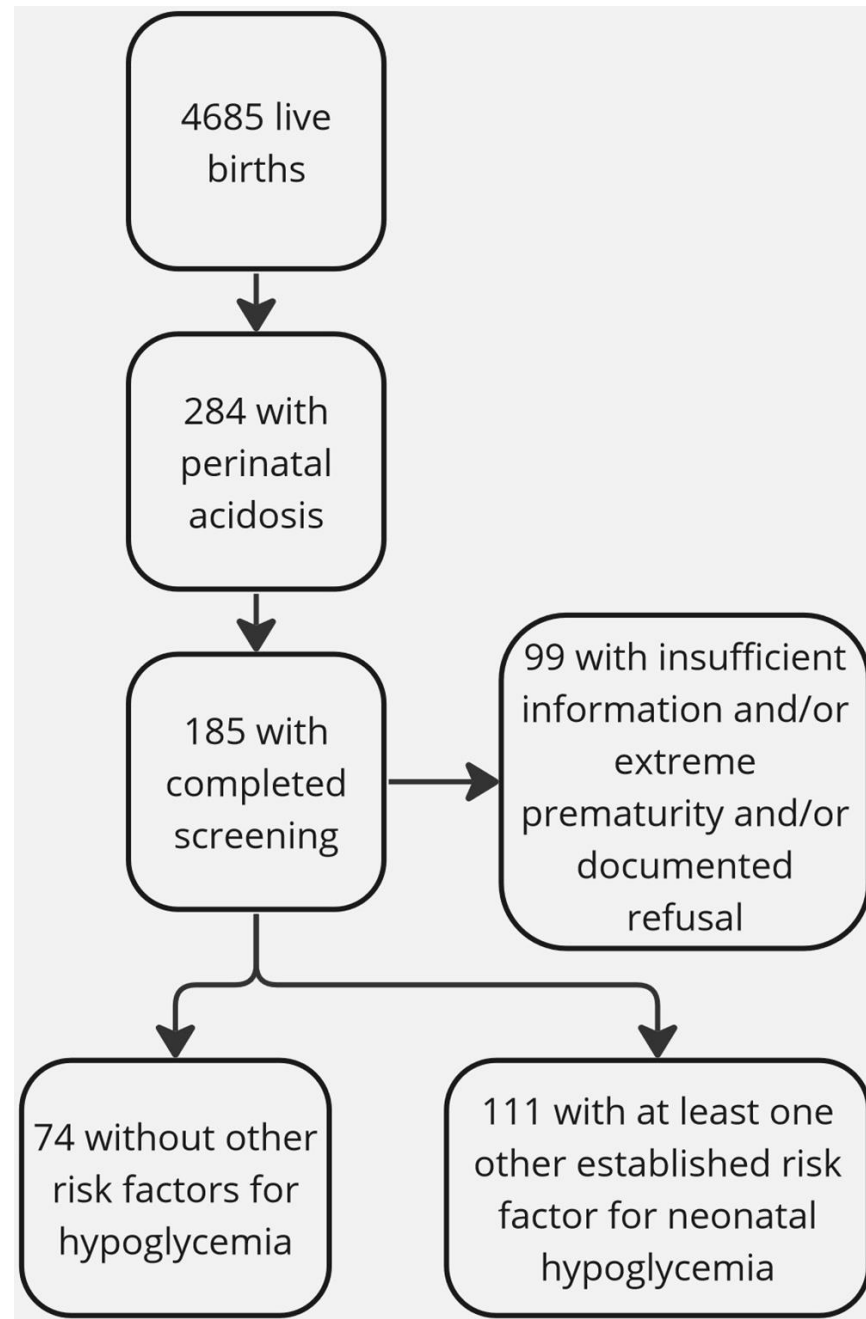
## Aim

Assessing the occurrence of hypoglycemia in neonates with different severity of perinatal acidosis.

## Methods

- Retrospective single-center, cross-sectional study at Fribourg Cantonal Hospital.
- Newborns with perinatal acidosis (umbilical artery **pH <7.15**) between 01.11.2017 and 30.04.2022.
- Screening:  $\geq 3$  preprandial blood samples at 3-4 hour intervals.
- Hypoglycemia **<2.6 mmol/l**.

# Results



**No significant** difference between newborns with (41.4%) or without (39.2%) additional major (prematurity, SGA and/or <2500g, maternal diabetes) and/or minor risk factors (LGA, hypothermia, infection, respiratory distress syndrome, ...).

# Discussion

- Not negligible hypoglycemia occurrence in **mild** perinatal acidosis.
- **Comparable** prevalences with and without further risk factors.
- Biases: small sample, prevention/treatment, timing of hypoglycemia.

# Conclusion

- Sample limitations.
- Perinatal acidosis, even mild ( $\text{pH}_{\text{art}} 7.10-7.14$ ), is a risk factor for hypoglycemia.
- Screening is rational.

# Authors & Affiliations

Scilla Koch<sup>1,2</sup>, Cristina Ardura-Garcia<sup>1</sup>, Laureline Barrielle<sup>1,2</sup>, Benedikt M. Huber<sup>1,2</sup>

1. Department of Pediatrics, Fribourg Cantonal Hospital, Fribourg, Switzerland

2. Department of Community Health, Faculty of Sciences and Medicine, University of Fribourg, Fribourg, Switzerland

**Correspondence to: [scilla.koch@unifr.ch](mailto:scilla.koch@unifr.ch)**

**UNI  
FR**  
■

UNIVERSITÉ DE FRIBOURG  
UNIVERSITÄT FREIBURG

**HFR**  
hôpital fribourgeois  
freiburger spital