

# Identification of peripartum near-miss improves perinatal audit

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## Introduction

- Today, perinatal audit focuses basically on cases of perinatal mortality ↔ In most centers in Western Europe, perinatal mortality is low
- Association between acidosis at birth and poor neonatal outcome<sup>(1-4)</sup>
- Identification of metabolic acidosis at birth may increase index cases eligible for evaluation of perinatal care

1. Ingemarsson *et al.* Br J Obstet Gynaecol. 1997;104:1123-1127

2. Victory *et al.* Am. Journal Obstet Gynecol 2004;191:2021-2028

3. Malin *et al.* BMJ 2010;340:1471-1483

4. Hafström *et al.* Pediatrics 2012;129:1501-1507

## Aim

Does identification of metabolic acidosis at birth improves perinatal audit?

## Methods & Results

- Single-center, observational study, from January 2010 until December 2012
- Umbilical cord blood analysis at birth for every neonate
- Acidosis (Sundström criteria<sup>5</sup>): pHa ≤7.05 and/or pHv ≤7.17

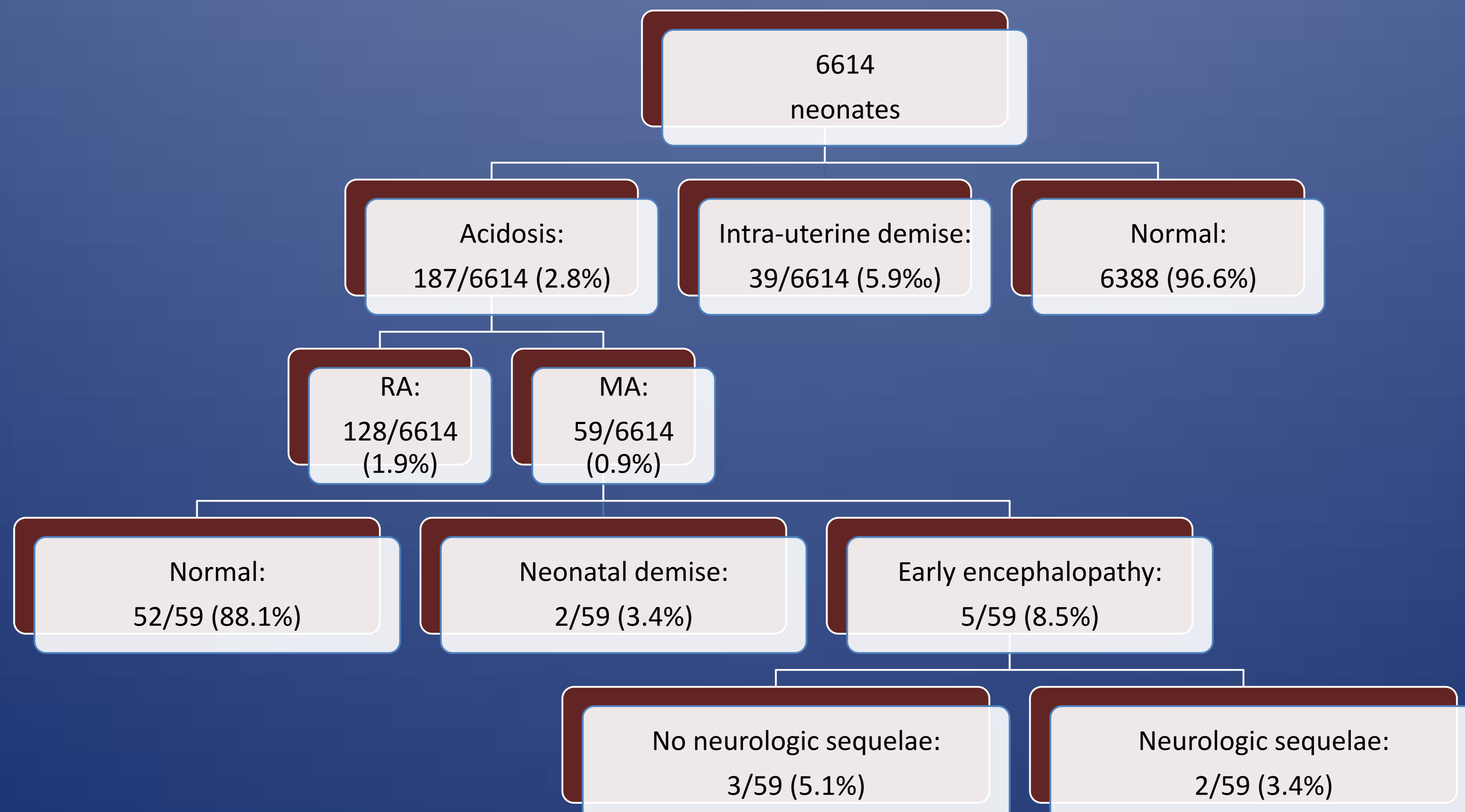
5. Sundström *et al.* Neovanta 2000



**Respiratory acidosis (RA):** arterial and venous Base Excess > -10 mmol/L

**Metabolic acidosis (MA):** arterial and/or venous Base Excess ≤ -10 mmol/L

- Failure of umbilical cord blood sampling/analysis: Apgar score ≤6 at 5 minutes as clinical equivalent for MA
- Retrospective chart review of obstetric and pediatric files (at least 6 months follow-up) for all cases of MA



## Discussion

1. Incidence of fetal mortality: 6‰  
Incidence of MA at birth: 9‰ } Addition of cases of MA to those of mortality = doubling index cases eligible for perinatal audit
2. Incidence of babies surviving with cerebral palsy is very low: 0.3‰. Both babies were born after instrumental delivery for fetal distress

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