

GESTATIONAL AGE–SPECIFIC PATTERNS AND AETIOLOGY OF INTRAUTERINE FETAL DEATHS: A PASS-BASED STUDY

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BACKGROUND

Intrauterine fetal death (IUFD) remains a major adverse pregnancy outcome. Its underlying causes may vary substantially with gestational age, but early losses are often underrepresented in perinatal mortality registries.

OBJECTIVES

To describe intrauterine fetal deaths according to gestational age and underlying aetiology using the PASS classification.

METHODS

- Retrospective study at a tertiary referral centre.
- Study period: 2021–2024.
- 183 intrauterine fetal deaths included.
- Gestational-age groups: <20, 20–28, 28–37 and >37 weeks.
- Underlying cause classified using PASS: 1A, 1B, 1C, 2A, 2B, 5A, 5B and 5C.

STUDY COHORT

183
INTRAUTERINE FETAL DEATHS



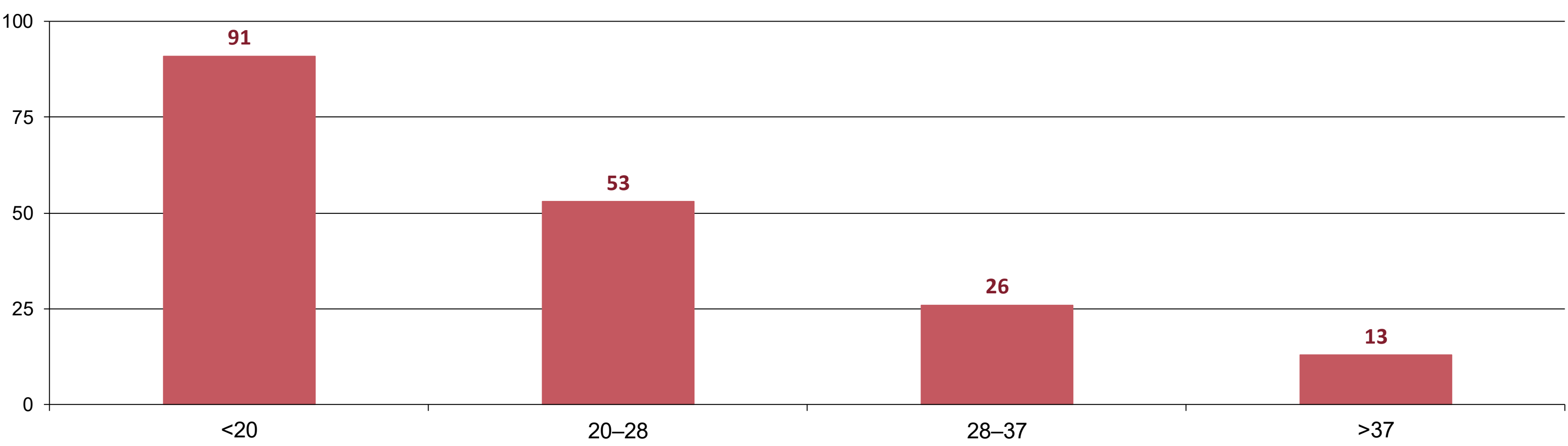
PASS CLASSIFICATION

1A	Intrinsic fetal disorder	1B	Infection
1C	Anaemia	2A	Umbilical cord
2B	Placental perfusion failure	5A	No cause identified
5B	Predisposing condition	5C	Insufficient information

RESULTS

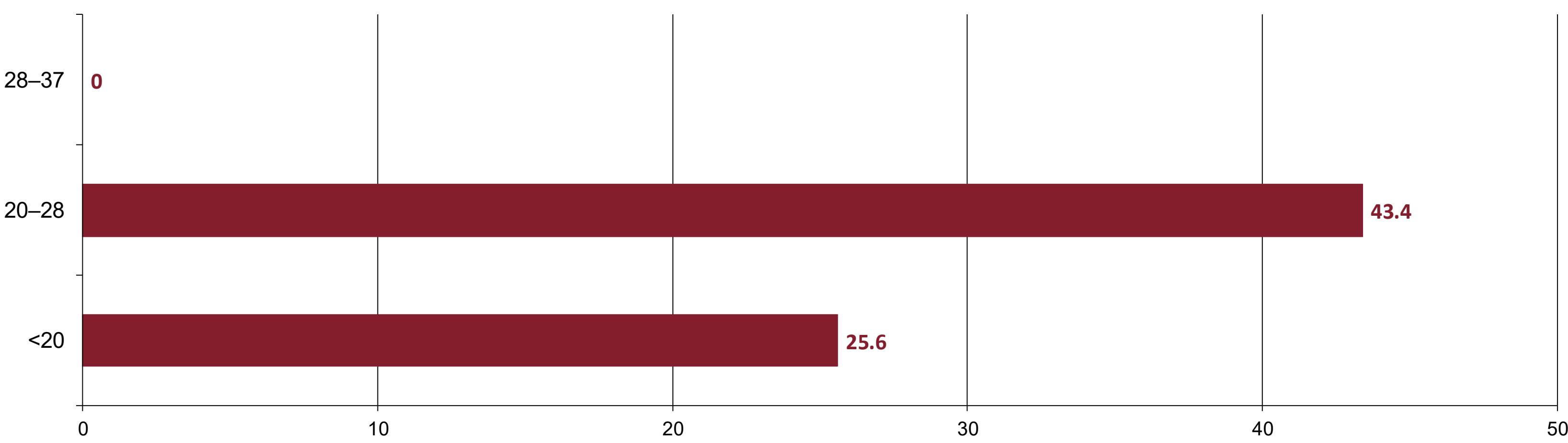
1 | Gestational-age distribution

Number of IUFDs by gestational-age group



2 | Infection across gestational age

Percentage of cases with infection as the PASS-defined cause

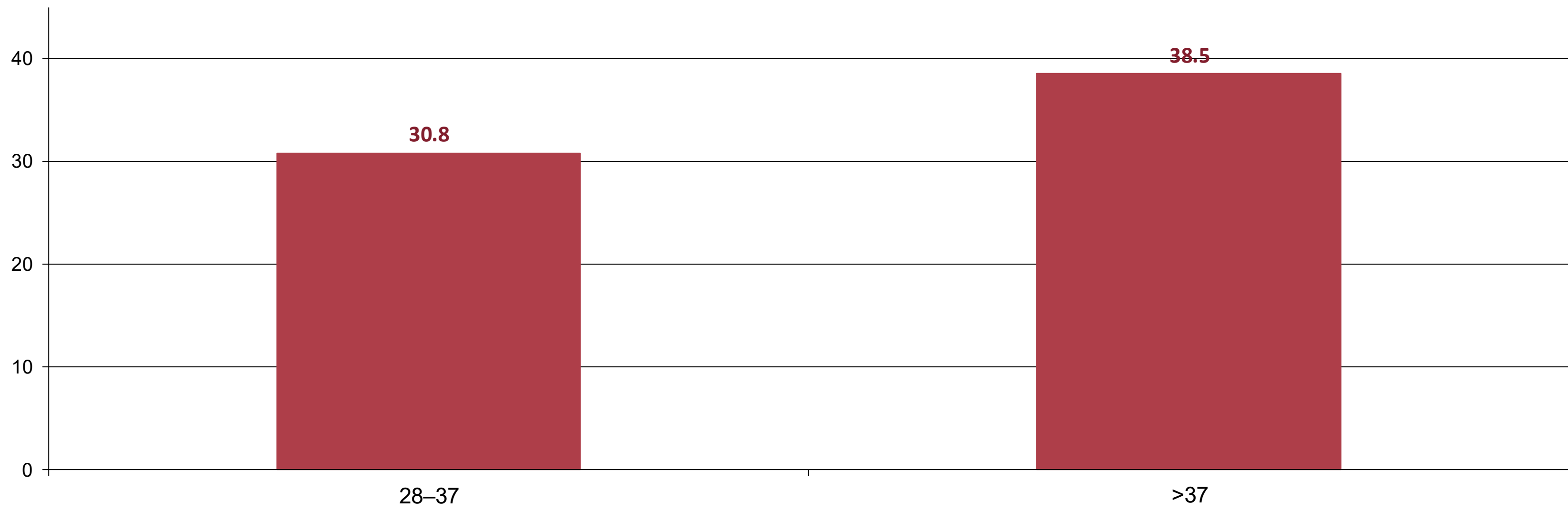


GESTATIONAL PATTERN

Infection predominated mostly at <20 and 20–28 weeks and was not observed at 28–37 weeks.

3 | Predisposing conditions without a direct cause (PASS 5B)

Later gestations showed an increasing contribution of category 5B.



KEY FINDINGS

- Almost half of IUFDs occurred before 20 weeks (49.7%)
- Infection was the most frequent overall cause (26.3%)
- Infection was concentrated in early gestation
- PASS 5B became the leading category in later gestations: 30.8% at 28–37 weeks and 38.5% at >37 weeks
- Placental and umbilical-cord causes increased in later gestations.

CONCLUSIONS

- IUFD SHOWS A CLEAR GESTATIONAL AGE–DEPENDENT AETIOLOGICAL PATTERN
- EARLY GESTATION IS CHARACTERISED BY A PREDOMINANCE OF INFECTION
- LATER GESTATIONS SHOW A GREATER CONTRIBUTION OF PREDISPOSING CONDITIONS AND PLACENTAL/UMBILICAL CAUSES
- SYSTEMATIC EVALUATION OF ALL GESTATIONAL LOSSES MAY IMPROVE IDENTIFICATION OF PREVENTABLE CAUSES AND COUNSELLING IN FUTURE PREGNANCIES