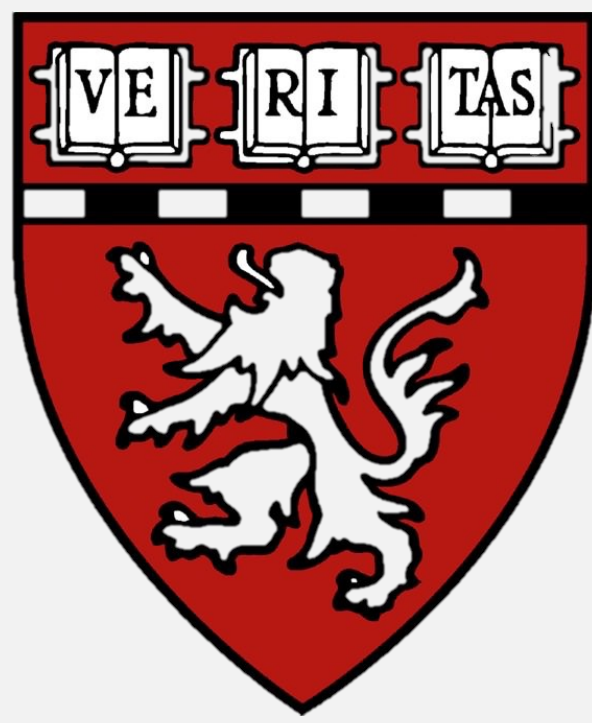




Factors Associated with Delayed Administration of Gentamicin in Patients with Suspected Chorioamnionitis



Diego Villela-Franyutti MD, John Hale MD, Olivia Rowse MD, Mario Lumbreras-Marquez MD MMSc, Jeffery Pearson PharmD BCIDP,
Somayeh Mohammadi MD, Anarghya Murthy, Gregory Woods MD, Khady Diouf MD, Michaela K. Farber MD MS

Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Harvard Medical School

Department of Obstetrics and Gynecology, Brigham and Women's Hospital, Harvard Medical School

BACKGROUND

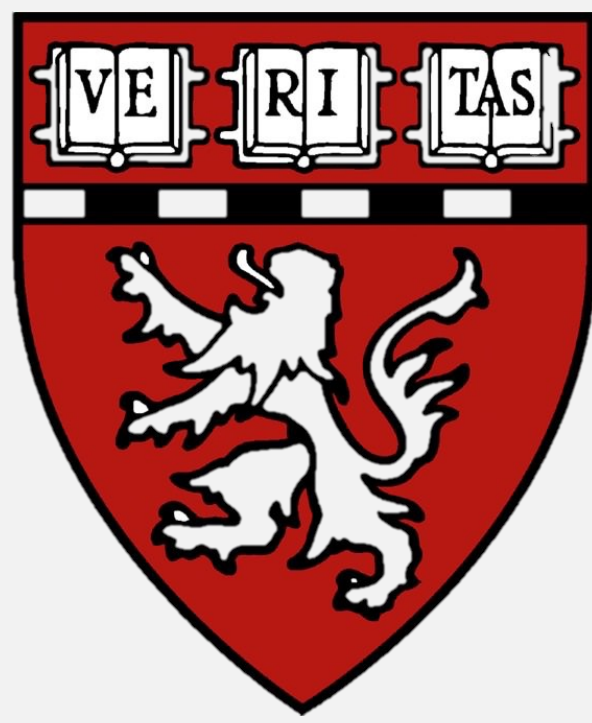
Chorioamnionitis is associated with maternal bacteremia in up to 10% of patients.¹ Prompt initiation of antibiotic treatment is critical to prevent both maternal and fetal complications.²

OBJECTIVE

- determine **time to administration** of gentamicin at our institution.
- identify **factors associated with delay** in gentamicin administration among patients with suspected chorioamnionitis.

METHODS

- Single-center retrospective cohort study (January-November 2021)
- Data from patients with suspected chorioamnionitis who received gentamicin was extracted from the medical record:
- **Descriptive analysis**
 - time to administration of gentamicin
 - proportion of cases with ≥ 1 hour delayed gentamicin administration
- **Univariable logistic regression**
 - potential factors associated with delayed gentamicin administration (patient factors, obstetric and anesthesia factors, laboratory and pharmacy data)



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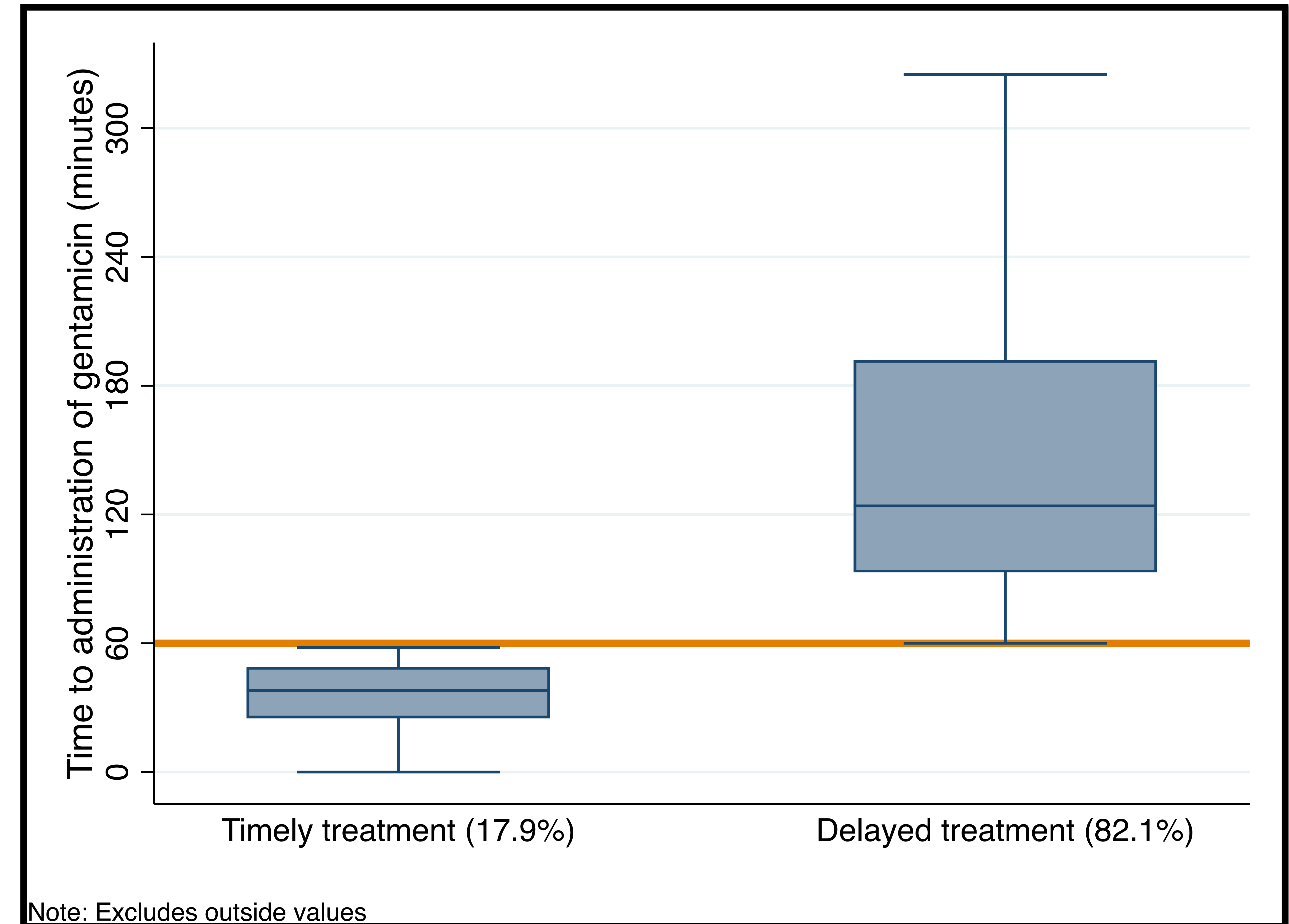
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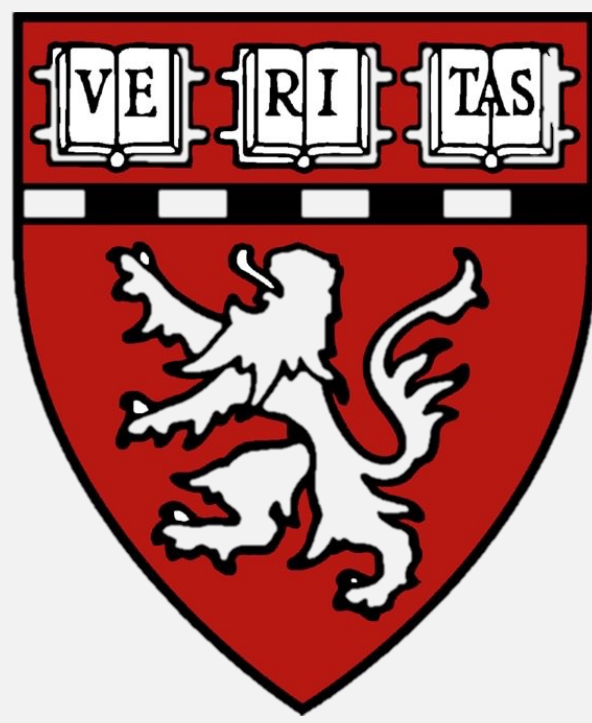
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RESULTS

386 patients were included in the analysis.

1. Median time to treatment → **110 minutes (IQR 72, 179)**
2. Factor most commonly associated with delayed treatment
Dose unavailable in premixed bag (OR 4.44, CI 2.56, 7.72)





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CONCLUSIONS AND NEXT STEPS

The need for central pharmacy to compound doses not available in premixed bags was the leading source of delayed gentamicin administration.

Responses to this quality initiative:

- gentamicin rounded to a therapeutic dosage
to enable use of premixed bags stocked on the labor unit
- Team education on readily available alternative antibiotics
cefotaxime and piperacillin-tazobactam
- Follow up surveillance planned to assess for improved
time to treatment

REFERENCES

1. Clin Perinatol. 2010 Jun; 37 (2): 339-54
2. Obstet Gynecol 2017 Aug; 130(2): e95-e101

