

# Barriers To The Golden Hour

## Improving Antibiotic Administration Time In Neonates

### Introduction

- ◆ Identifying and preventing early onset infections in newborn infants is a key role of a neonatal doctor
- ◆ Infants identified at being at risk of infection should have antibiotics administered within an hour of the decision to treat<sup>1</sup>
- ◆ Do we manage to achieve this target, and if not, why not?

### Methodology

- ◆ We included 20 consecutive neonates of any gestation brought to our neonatal unit where a decision for antibiotics was made at the point of admission
- ◆ We looked at the difference between admission time and administration time

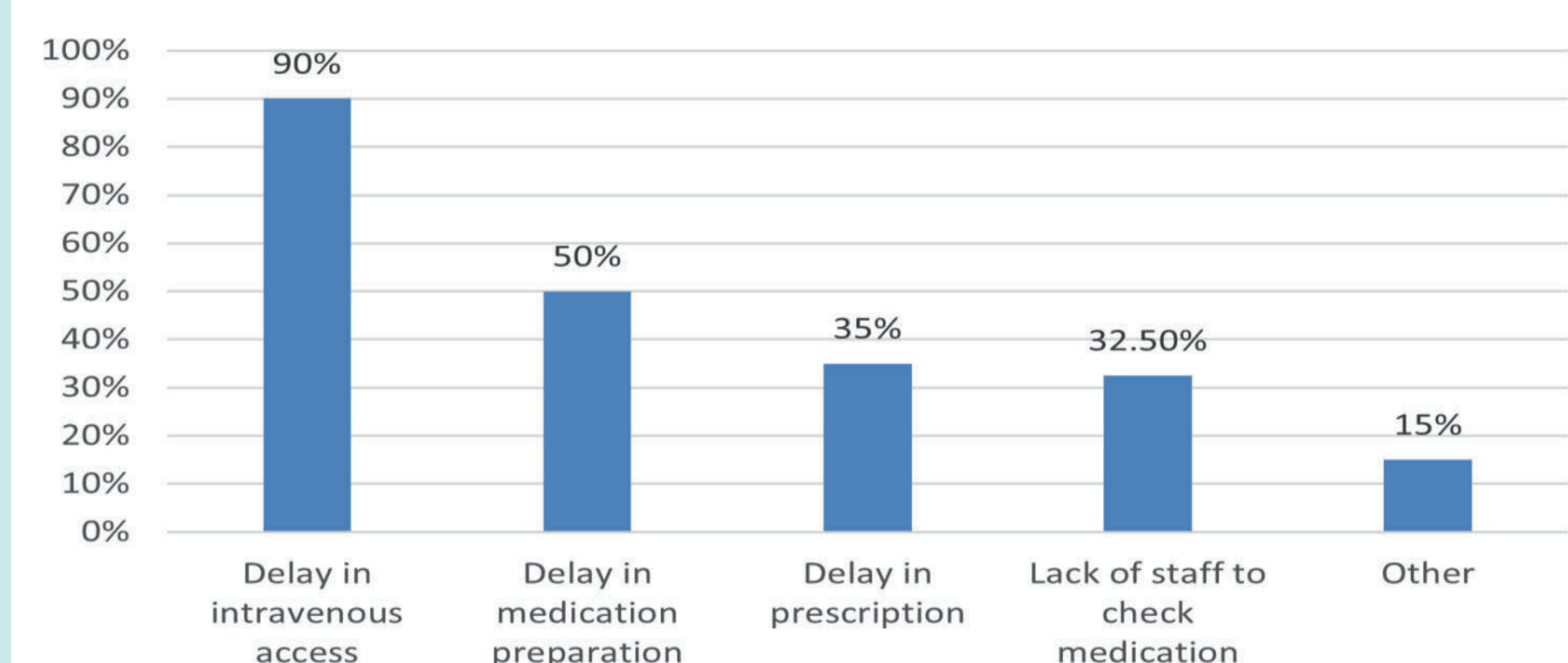
### Initial Results

- ◆ Babies receiving antibiotics within 1 hour - 45%
- ◆ Preterm babies (<37 weeks) receiving antibiotics within 1 hour - 25%

### Intervention

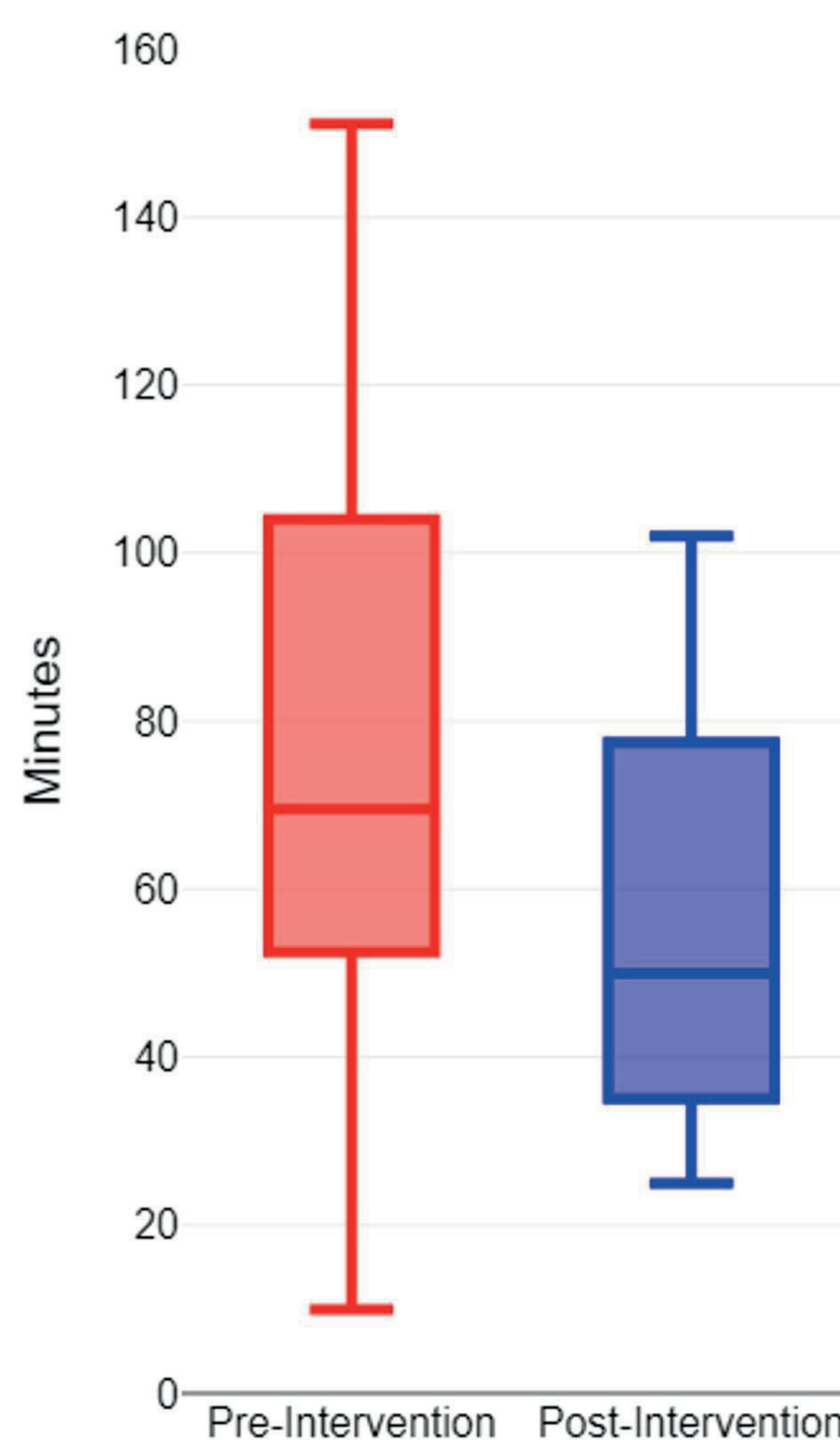
- ◆ Results cascaded to nursing and medical team and survey sent to staff (40 responses) - theories as to reason for delay and possible improvements

### Survey Responses



- ◆ Following this, we recommended to the medical team that they administer antibiotics themselves during central line insertion whilst sterile

### Time to Administration



### Subsequent Results

- ◆ 20 further admissions with same criteria analysed following this change
- ◆ Babies receiving antibiotics within 1 hour - 65%
- ◆ Preterm babies (<37 weeks) receiving antibiotics within 1 hour - 67%

### Discussion

- ◆ Improving time to administration is clearly multifactorial and there is no golden bullet
- ◆ This one intervention improved our results and there was a notable reduction in preterm infant delays
- ◆ There are other areas for intervention which can be targeted after a sustained improvement is demonstrated in this new practice

All survey data available via this QR code or link below:

[https://www.surveymonkey.com/stories/SM-4iDbigh\\_2FkNJo1Q6UHaupzw\\_3D\\_3D/](https://www.surveymonkey.com/stories/SM-4iDbigh_2FkNJo1Q6UHaupzw_3D_3D/)



### Acknowledgments

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### Bibliography

- 1) National Institute for Health and Care Excellence (2014). Neonatal infection (Quality Standard QS75). Available at <https://www.nice.org.uk/guidance/qs75>