

Group B Streptococcal Disease in Newborns at Groote Schuur Hospital in Cape Town, South Africa.

Bradley Browne, MBChB, MSc, DCH, DTM&H
 Lloyd Tooke, MBChB, Mmed, Cert, neonatology
 Amanda Khumalo, MBChB, FCPATH
 University of Cape Town, South Africa
 Groote Schuur Hospital.

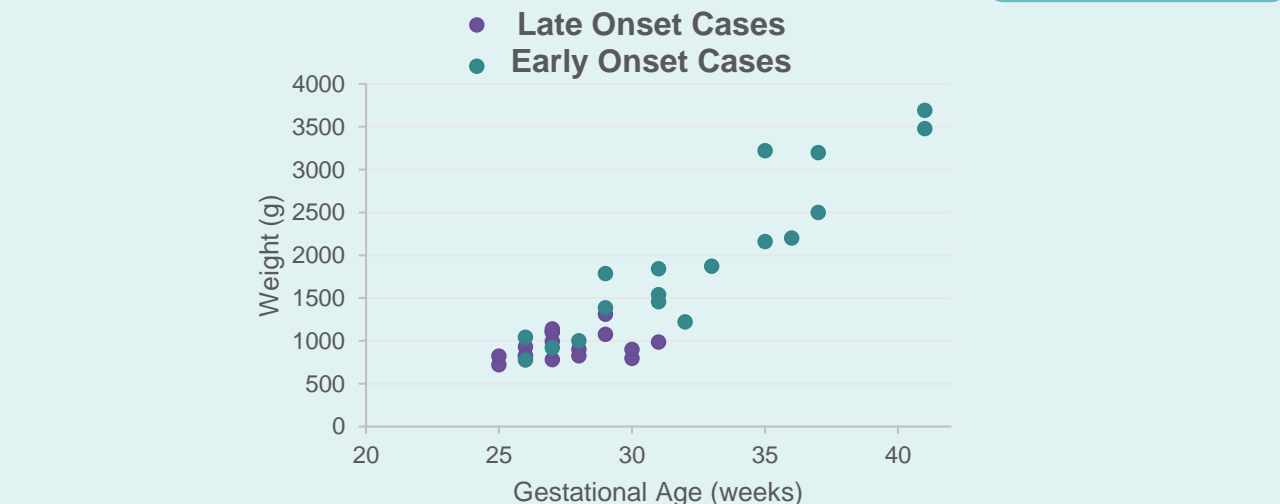
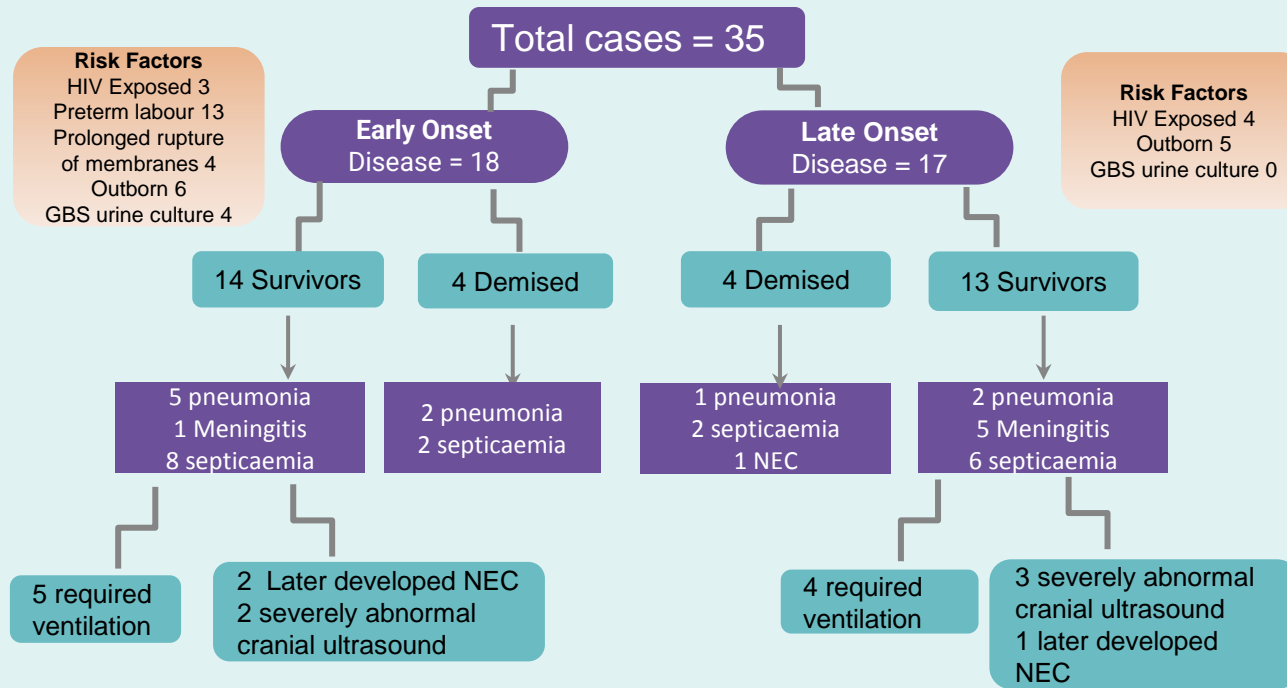
Introduction

- South Africa has a high burden of Group B Streptococcus (GBS) disease in newborns due to a high GBS carriage rate, sub-optimal intrapartum prophylaxis, and a high prevalence of HIV. There are few studies describing the burden in the Western Cape Province (WC).
- Groote Schuur Hospital (GSH) is a 75 bed tertiary neonatal referral unit in the WC, providing care for the sickest and most premature newborns in Cape Town Metro.
- Antenatal GBS screening and intrapartum antibiotic prophylaxis is not practiced.

Methods

- Design: Descriptive Case Series
- Data: Complete sample of all blood culture-confirmed GBS cases in newborns at GSH between January 2014 and December 2020.
- Exclusion: Infants older than 90 days.
- Recruitment: National Health Laboratory System database was used to identify all GBS positive bloods cultures at GSH during the time period.
- Data: Collection and analysis performed by Bradley Browne
- Ethics: Obtained from University of Cape Town.

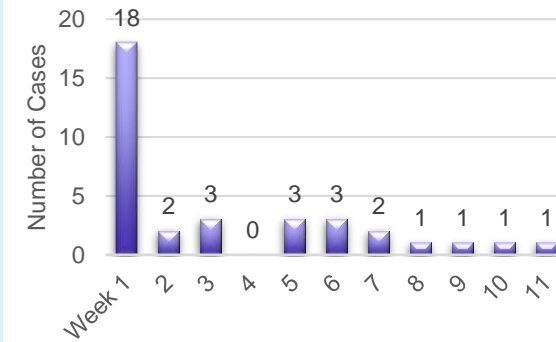
Mortality rate of 23% Poor Neurological Prognosis in 19% of Survivors



Results

Variable	Total Cases (= 35)	Death
Birth Weight (g)	Median = 1100g (IQR:900 –1813)	
500 – 1000	14 (40%)	2 (14%)
1000 – 1500	10 (28%)	5 (50%)
1500 – 2500	6 (17%)	0
2500 – 4000	5 (14%)	1 (20%)
Gestational age (weeks)	Median 29 weeks (IQR: 27 – 31.5)	
<28 weeks	13 (37%)	3 (23%)
28 – 32 weeks	14 (40%)	4 (28%)
33 – 36 weeks	4 (11.5%)	0
>37 weeks	4 (11.5%)	1 (25%)
Onset		
Early Onset Sepsis	18 (51%)	4 (22%)
Late Onset Sepsis	17 (48%)	4 (23%)
HIV Exposure		
Unexposed	28 (80%)	6 (21%)
Exposed	7 (20%)	2 (28%)
Antenatal booking		
Booked	27 (77%)	6 (33.3%)
Unbooked	8 (22%)	2 (25%)

Week of life diagnosis



- Maternal HIV status was known for all cases. All infants tested HIV PCR negative at birth, and HIV exposure was not associated with early or late onset disease, or death.
- GBS-related illness accounted for a cumulative 213 days of intensive care unit admission in this cohort.

Conclusion

GBS disease is associated with high mortality and morbidity at this tertiary unit in South Africa, with a similar burden of early and late-onset disease.