

Group B Streptococcus identified in heart stab blood cultures taken from stillbirths: an update from the PROGRESS trial

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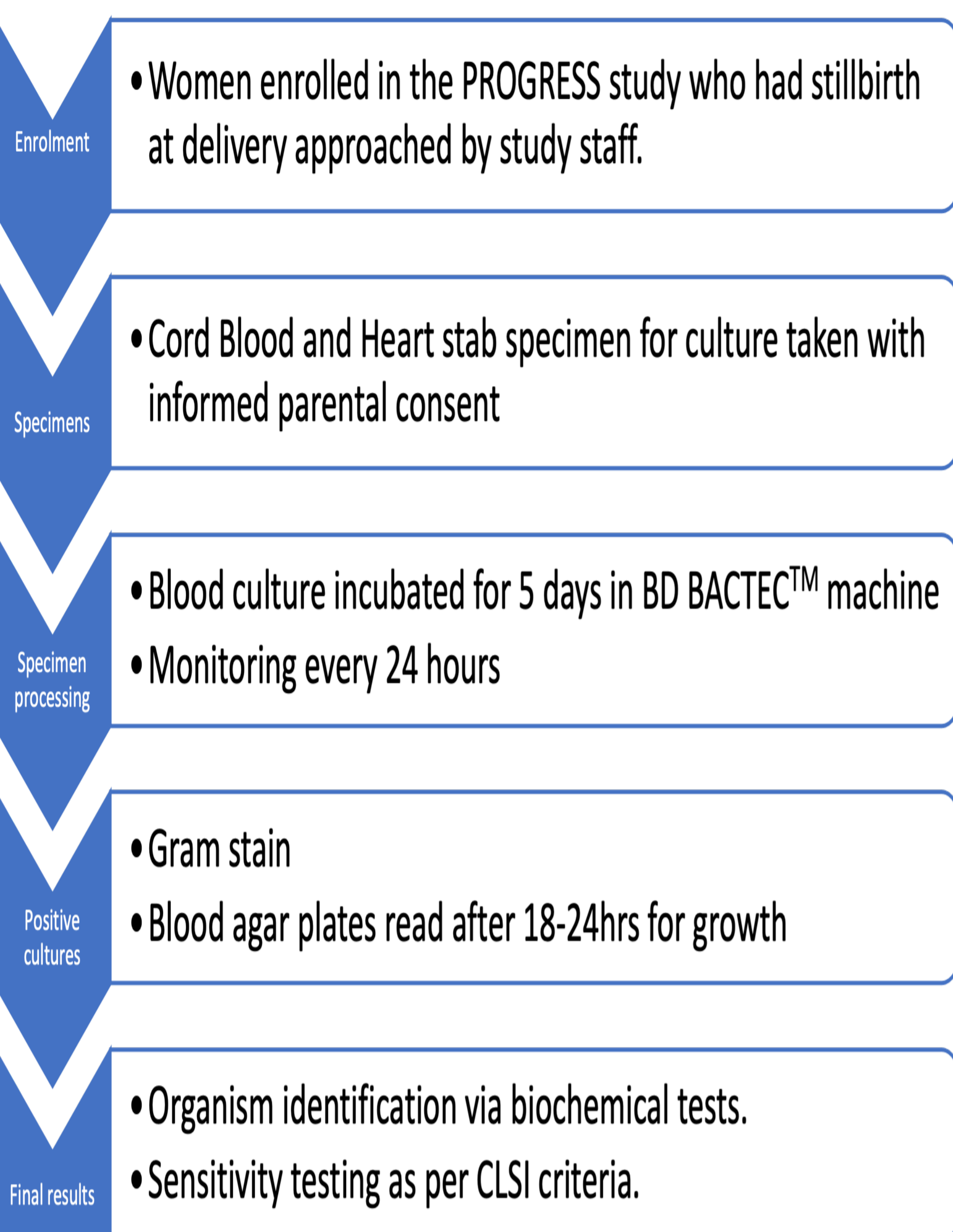
Background

Globally there are an estimated 2.6 million stillbirths annually; 1 million in sub-Saharan Africa.

Group B Streptococcus (GBS) is a common colonizer of the genitourinary tract, occurring in roughly 10-40% of women worldwide.

GBS has been described as an important contributor to the worldwide stillbirth burden and has been estimated to account for 4% of stillbirths in sub-Saharan Africa [1]. However, data are lacking to refine this estimate. Here we present details of stillbirths associated with GBS in Kampala, Uganda.

Methods



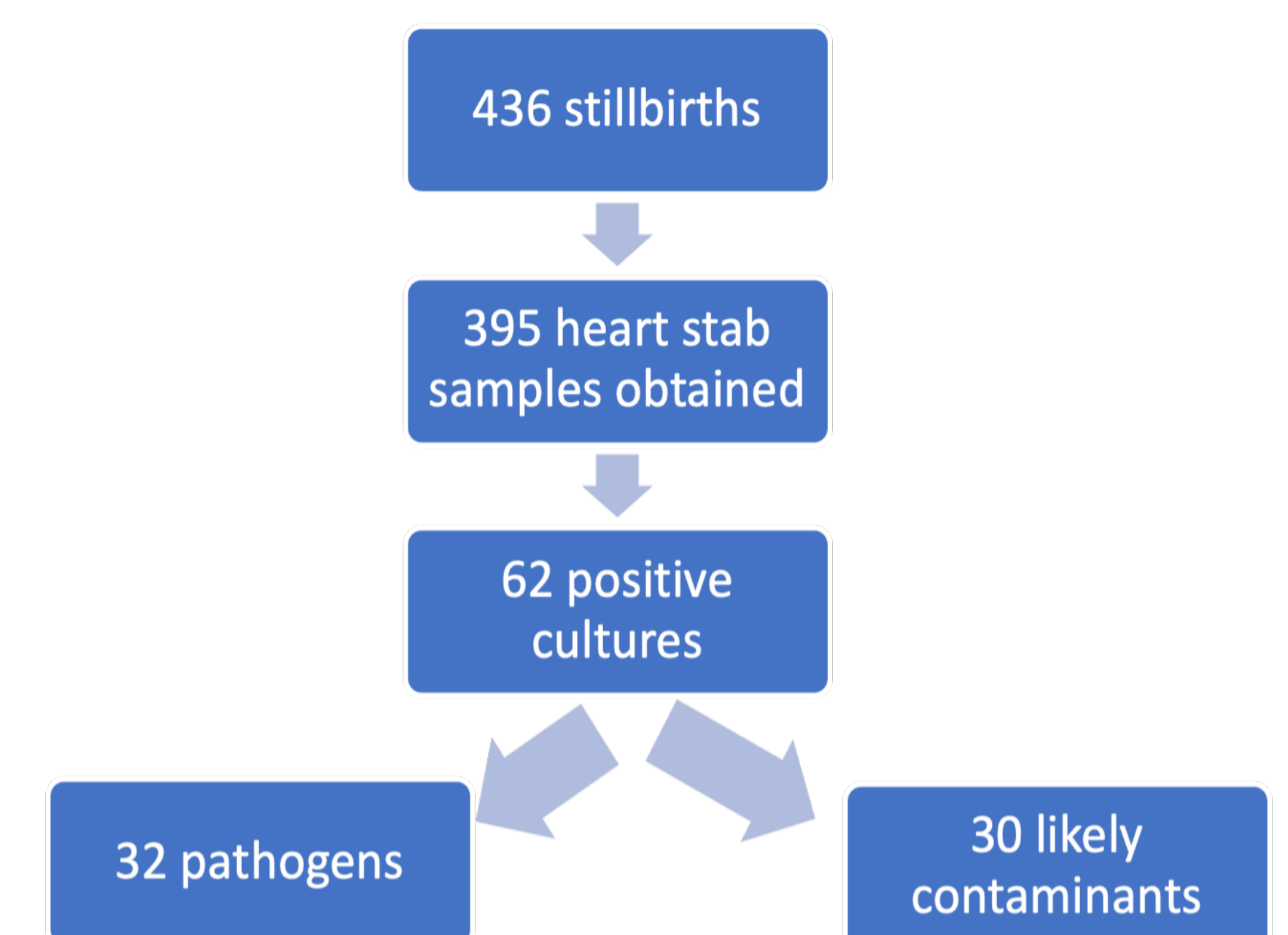
Organism	N	% of all positive cultures (n=62)
Viridans streptococcus	9	14.5
Enterococcus spp	8	12.9
Escherichia coli	6	9.7
Staphylococcus aureus	2	3.2
Group C Streptococcus	2	3.2
Group B Streptococcus	2	3.2
Klebsiella pneumoniae	1	1.6
Klebsiella oxytoca	1	1.6
Acinetobacter spp	1	1.6

Table 1: Pathogens identified in heart stab blood cultures

References

- Seale, Anna C et al. "Stillbirth With Group B Streptococcus Disease Worldwide: Systematic Review and Meta-analyses." *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America* vol. 65,suppl_2 (2017): S125-S132. doi:10.1093/cid/cix585
- Kyohere M, Davies HG, Musoke P et al. Seroepidemiology of maternally-derived antibody against Group B Streptococcus (GBS) in Mulago/Kawempe Hospitals Uganda - PROGRESS GBS [version 2; peer review: 2 approved]. *Gates Open Res* 2020, 4:155 (<https://doi.org/10.12688/gatesopenres.13183.2>)

Results



Pathogenic organisms were identified in 8.1% of all heart stab specimens (95% CI 5.4% to 10.8%).

Group B Streptococcus was isolated in 3.2% of positive blood cultures.

Both Group B streptococcus isolates showed intermediate and resistance to penicillin.

Discussion

Bacterial infection is commonly associated with stillbirth in our Ugandan population.

Several streptococcal species were identified in cultures of stillborn infants.

The incidence of stillbirths caused by GBS was 5.1/1000.

Conclusions

Our results contribute vital data to the potential infectious aetiology of stillbirths in Uganda, as well as the potential role of GBS as a causative pathogen.