

Universal Screening for Group B Streptococcus during Pregnancy in AWH: An Initiative to Reduce NICU Admissions

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Background

Group B strep infection is caused by bacteria typically found in vagina or rectal area. GBS remains a leading cause of perinatal infection.

About 25% of pregnant ladies have GBS, but don't know it because it doesn't cause symptoms. A pregnant women with GBS can pass the bacteria to baby during vaginal delivery.

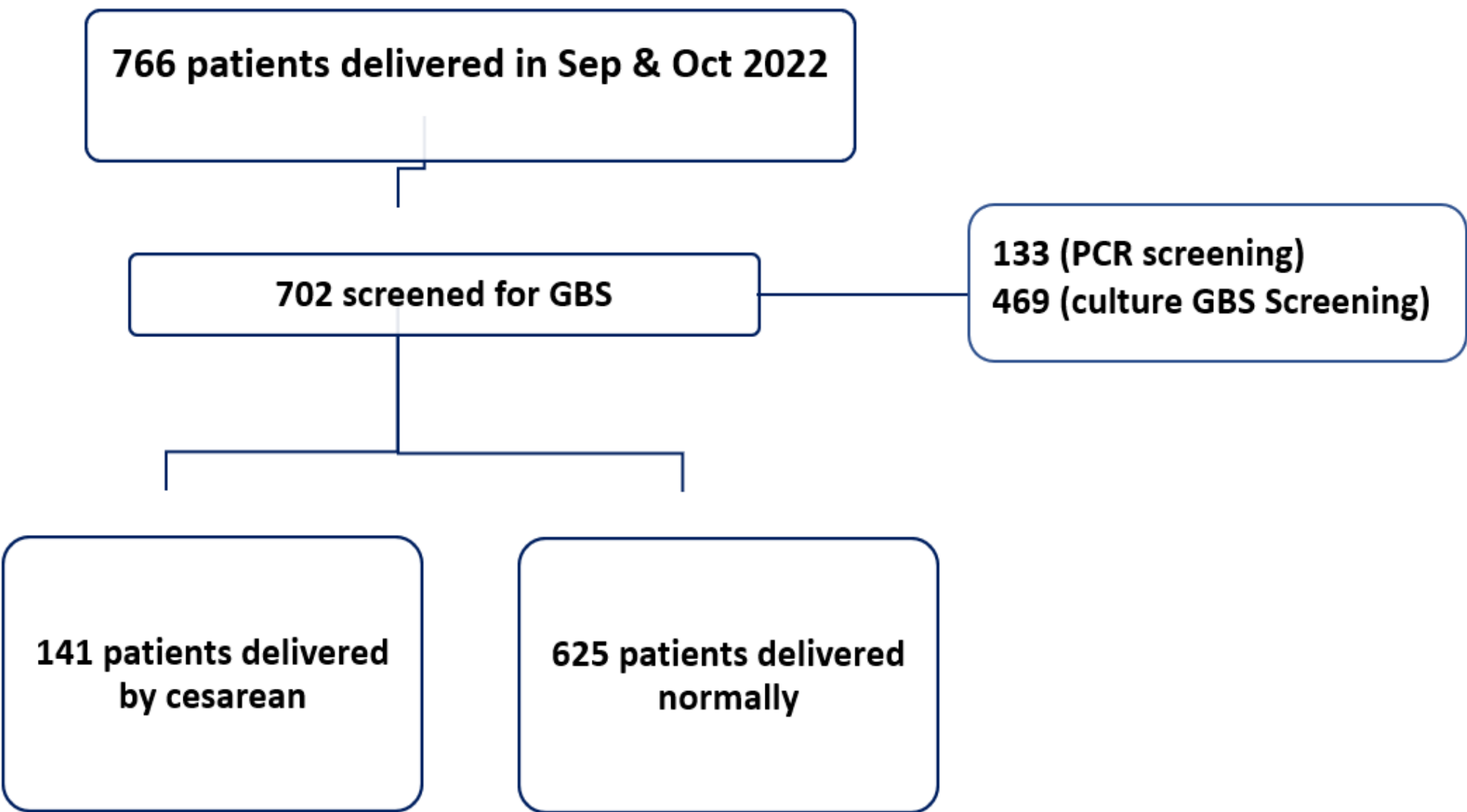
Early treatment and then antibiotic prophylaxis are shown to reduce morbidity and mortality rates; however, Although it has not been possible to eradicate GBS colonization, intravenous antibiotic prophylaxis given during delivery has been effective in the prevention of vertical transmission.

Recently, diagnostic tests with polymerase chain reaction have offered promise for rapid accurate detection. This could lead to a major shift in the timing of diagnosis from the office setting to delivery suite. Hamad Medical Corporation guidelines recommend that pregnant women be screened for the presence of GBS using one of two testing methods: culture or PCR screening.

A screening culture should be performed at 35 to 37 weeks of gestation for all patients expected to deliver vaginally. PCR screening in all cases with no known previous GBS status at the time of labor or if delivery expected within 48 hours. Our goal in this review to determine the level of compliance with GBS testing and to know the babies' outcomes after the universal screening.

Methods

A retrospective review of all patients delivered in AWH between Sep 2022- Oct 2022. Data recorded included: demographics, mode of delivery, GBS status , result of culture , use of antibiotic admission to NICU and result of babies' culture.



Results

- 766 patients delivered in September and October 2022 were included in the study.
- We found 702 patients screened for GBS, of whom 625 were delivered vaginally and 141 were delivered by caesarean section.
- We found that 133 patients screened by PCR, 469 patients by rectovaginal culture and 20 patients had GBS in their urine.
- We also found that 161 patients were colonized with GBS.
- 21% was the rate of GBS in our pregnant women.
- 97% of them received correctly the antibiotic (penicillin) during delivery and four hours before delivery time.
- Interestingly we found that there was only one baby with GBS positive admitted to NICU for treatment .

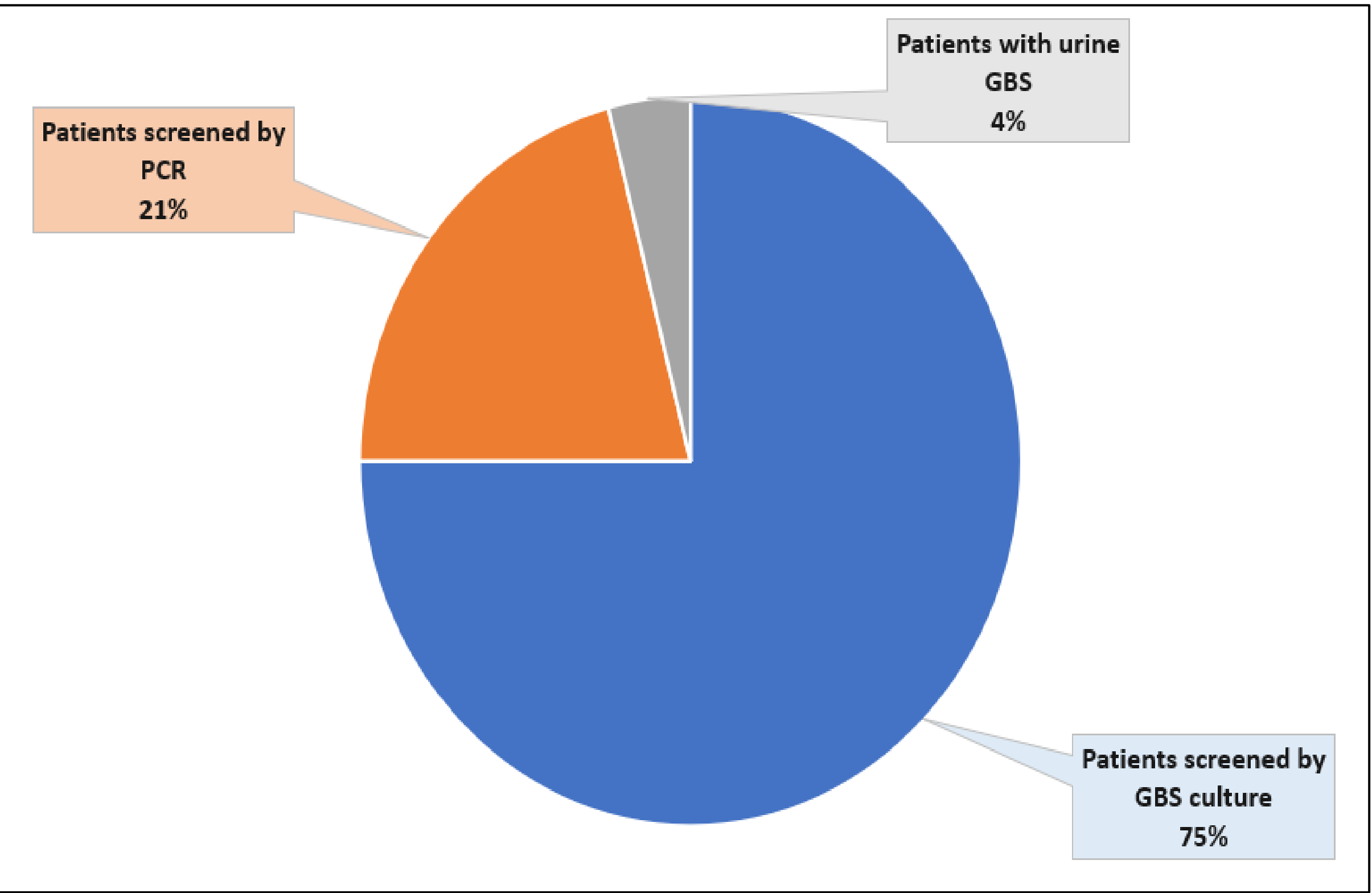


Figure 1. Type of screening

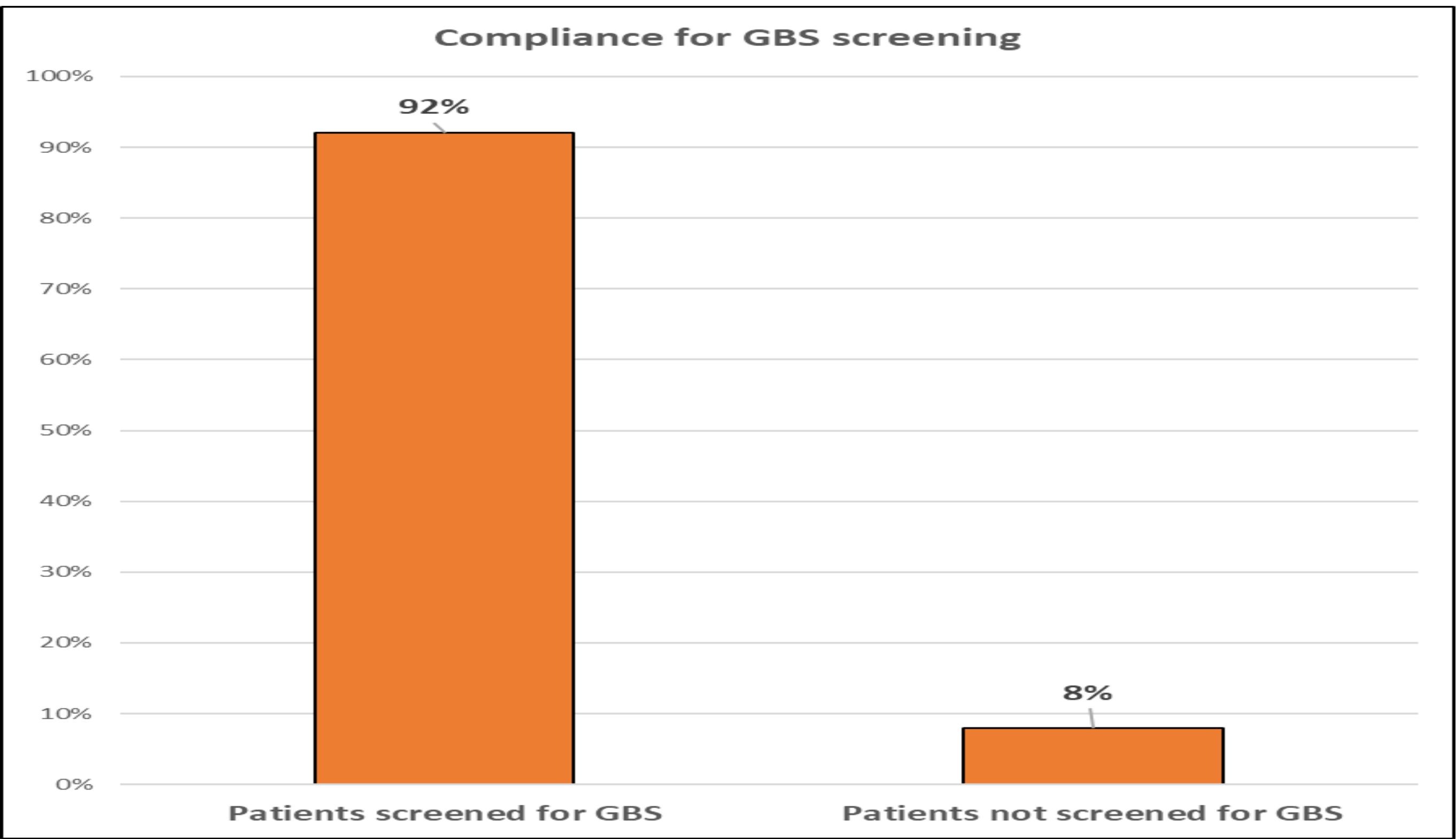


Figure 2. compliance of GBS screening

Conclusion

- Results of this review indicated that universal screening of pregnant women with timed administration of intrapartum penicillin significantly reduces NICU admissions for GBS infection.
- We recommend that pregnancy screening for GBS continue to be a national strategy in all birth settings within Qatar.