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Risk factors for hearing loss in Neonatal ICU (NICU) and hearing assessment of at-risk infants

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INTRODUCTION

According to the CDC, population-based studies have identified a consistent prevalence of approximately 0.1% of children having hearing loss.

The American Academy of Pediatrics recommends that every child with 1 or more risk factors should have ongoing developmentally appropriate hearing screening & at least 1 diagnostic audiology assessment by 24 to 30 months of age.

Congenital or acquired hearing loss in infants and children has been linked to lifelong deficits in speech and language acquisition, poor academic performance, personal - social maladjustment and emotional difficulties.

Early detection through neonatal hearing screening and appropriate intervention can prevent these adverse consequences.

In Trinidad and Tobago, there is limited data regarding neonatal hearing loss .

Presently there is no neonatal hearing screening program implemented within the Regional Health Authorities and the full range of hearing tests needed are not widely available within the public sector.

OBJECTIVE

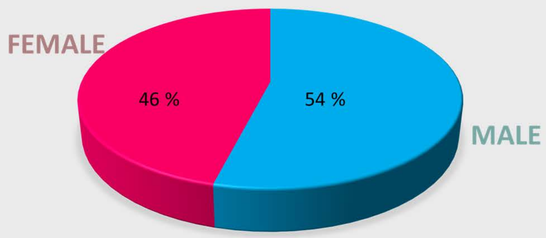
In this audit, we aim to identify neonates with recognized risk factors for hearing loss and evaluate if hearing tests were recommended and performed on these neonates born during the period May 1st to July 31st, 2014 at the San Fernando General Hospital Neonatal Unit.

METHOD

A retrospective review of 100 case files between May 1st - July 31st, 2014 was conducted.

A Performa was designed to obtain specific information from the notes with particular attention to pertinent risk factors for hearing loss in the neonate as established by the American Academy of Pediatrics (AAP) and the Joint Committee on Infant Hearing (JCIH) 2007.

RESULTS



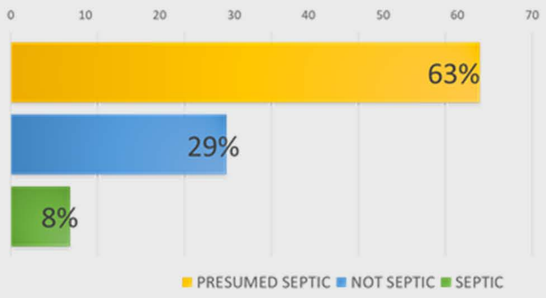
9% of the neonates were ventilated

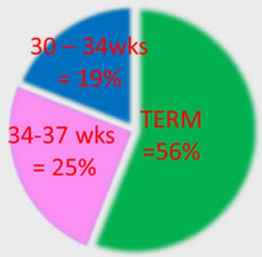
Gentamicin use - 29% (>5 days) ; 36% (< 5 days)

4% had congenital abnormalities

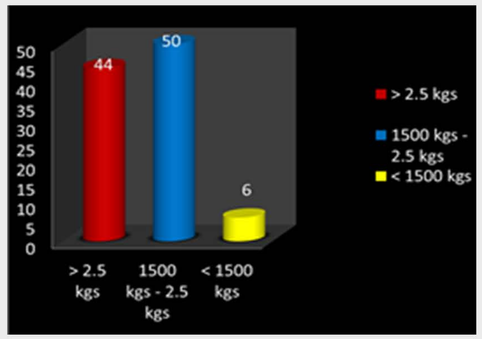
3% had Hypoxic Ischemic Encephalopathy

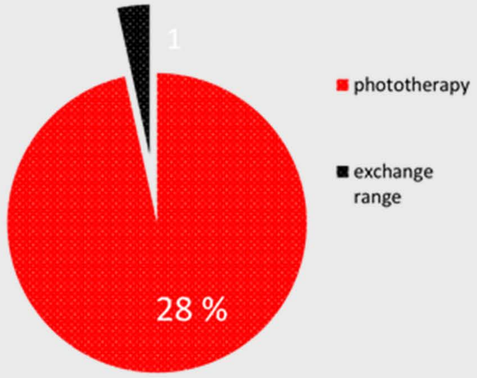
Of all the case files reviewed, only 1 noenate had a documented hearing test
done (distraction testing) which was normal .

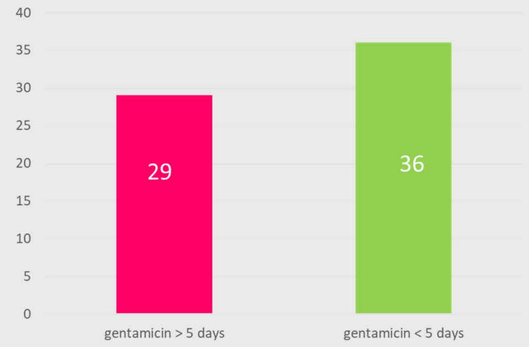




RESULTS (cont'd)







CONCLUSION

It is evident that there is a high incidence of risk factors for hearing loss in babies admitted to the Neonatal ICU.

Newborn hearing screening should be mandatory for all babies including graduates of the Neonatal ICU.

The results of this audit consequentially led to positive changes within the NICU. Now , ALL NICU babies who are at risk of hearing loss are consistently referred to DRETCHI for hearing assessment within a 6-month period.

Presently, there are ongoing discussions in South West Regional Health Authority to establish New-born Hearing Screening.

The full compliment of tests are still not available in all Regional Health Authorities.

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