

***INCIDENCE OF CONGENITAL
SYPHILIS IN NEONATES OF
POSITIVE VDRL MOTHER AT
NATIONAL REFERRAL HOSPITAL***

PREPARED BY: MAXSON LIFIGAO

DATE: 28-08-2019

INTRODUCTION

- ***Solomon Islands is still experiencing a high case load of congenital syphilis when reported separately for NNS, it is the 3rd leading cause of death (3.1%) after neonatal meningitis (21.6%) and neonatal pneumonia (4.5%)¹.***
- ***And the 3rd leading cause of admission after cord sepsis and skin sepsis of the neonatal sepsis at NRH.***

INTRODUCTION

- ***This research will evaluate the incidence of congenital syphilis in neonates of positive VDRL mothers at the NRH***
- ***By using data collected from April to July 2019***
- ***Improving neonatal health is a global health priority working towards SDG through the Child survival strategy***

DEFINITIONS

- *Congenital syphilis: Clinical signs and symptoms, reactive VDRL and positive TPHA and titer*
- *Adequate treatment: completed full course of treatment*
- *Inadequate treatment: incomplete course of treatment*
- *No treatment: No treatment received or no documentation*

OBJECTIVES

- 1. To determine the number of neonates born to VDRL/TPHA positive mothers at NRH.***
- 2. To determine the VDRL status of babies born to positive VDRL/TPHA mothers who had adequate treatment.***
- 3. To determine the gestational ages and birth weights of these neonates and their treatment outcome.***

METHODOLOGY

1. Study setting:

- ***Special Care Nursery and Post Natal ward of the National Referral Hospital, Solomon Islands***

2. Study design and participants:

- ***A prospective observational study***
- ***An information sheet was used to collect patients information***
- ***Inclusion criteria: neonates born to positive VDRL mothers delivered at NRH including BBA***
- ***Exclusion criteria: Still birth born to a positive VDRL mother***

METHODOLOGY

3. Data collection Methods:

- ***All neonates of the positive VDRL mothers during the study period were examined, investigated, treated and entered in special prepared excel spreadsheet.***
- ***Follow up VDRL/TPHA for high titres (4 folds increase) at 3 months review***

4. Data Cleaning

- ***Data summary from the Excel spreadsheet then imported into SPSS V23 for analysis***

METHODOLOGY

5. Preparations for Data Analysis

- *We used this study to better understand the burden of congenital syphilis as it is also an indicator of quality antenatal care which has an implication on neonatal morbidity and mortality.*

6. Data analysis

- *All exported data from excel spreadsheet were analysed in SPSS V23*
- *Descriptive statistics were used to compare outcome*

7. Ethical approval

- *Approval was granted by the Solomon Islands Health Research and Ethics Review Board of the MOH*

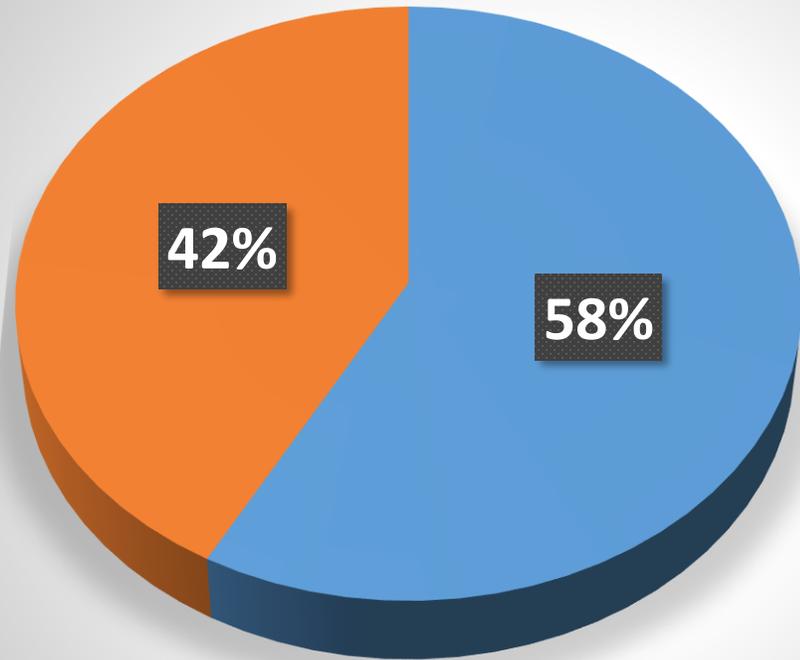
RESULTS

BASE LINE PATIENT CHARACTERISTIC AT NATIONAL REFERRAL HOSPITAL FROM APRIL TO JULY 2019

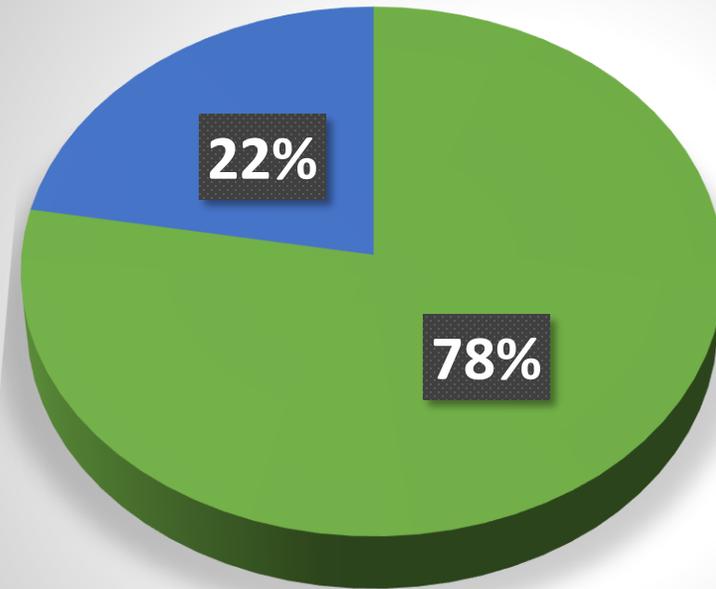
Total deliveries	1534		
Mothers with reactive VDRL	130 (8.5%)		
Mothers completed treatment for syphilis	48 (37%)		
Mothers partially treated for syphilis	46 (35%)		
Mothers not treated for syphilis	36 (28%)		
Total neonates for investigation	130	Male 58 (45%)	Female 72(55%)
Symptomatic for congenital syphilis (hepatosplenomegaly, skin peeling of palms and soles, jaundice and anaemia)	7 (5%) – 73 % are from mothers who were partially or and not treated.,		
Asymptomatic for congenital syphilis	123 (95%)		
Gestational age	Term 106 (81.5%)	Preterm 24 (18.5%)	
BWT	>2.5KG 101 (77.7%)	1500g – 2499g 26 (20%)	< 1500g 3 (2.3%)
Neonates with reactive VDRL	72 (55%)		
Neonates with non-reactive VDRL	58(45%)		
Neonates from mother who completed treatment for syphilis	17 (24%)		
Neonates from mothers who is partially treated for syphilis	29 (40%)		
Neonates from mothers who is not treated for syphilis	26 (36%)		
Neonates with positive TPHA	67 (93%) – (10.5 % of them were symptomatic, and 89.5 % were asymptomatic.		
Neonates with negative TPHA	5 (7%)		
Titres	1:1-1:2 (27cases)	1:4-1:8 (>1:16 5

RESULTS

72 VDRL/TPHA POSITIVE NEONATES



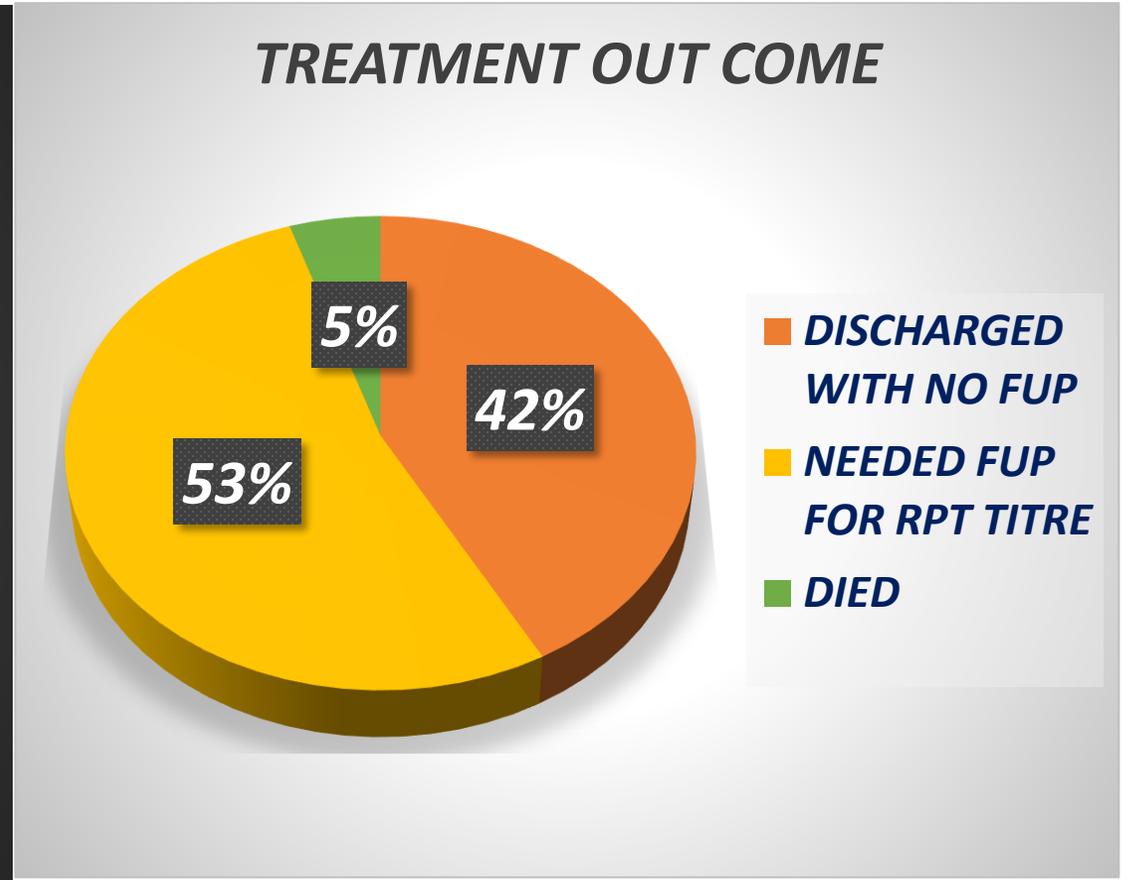
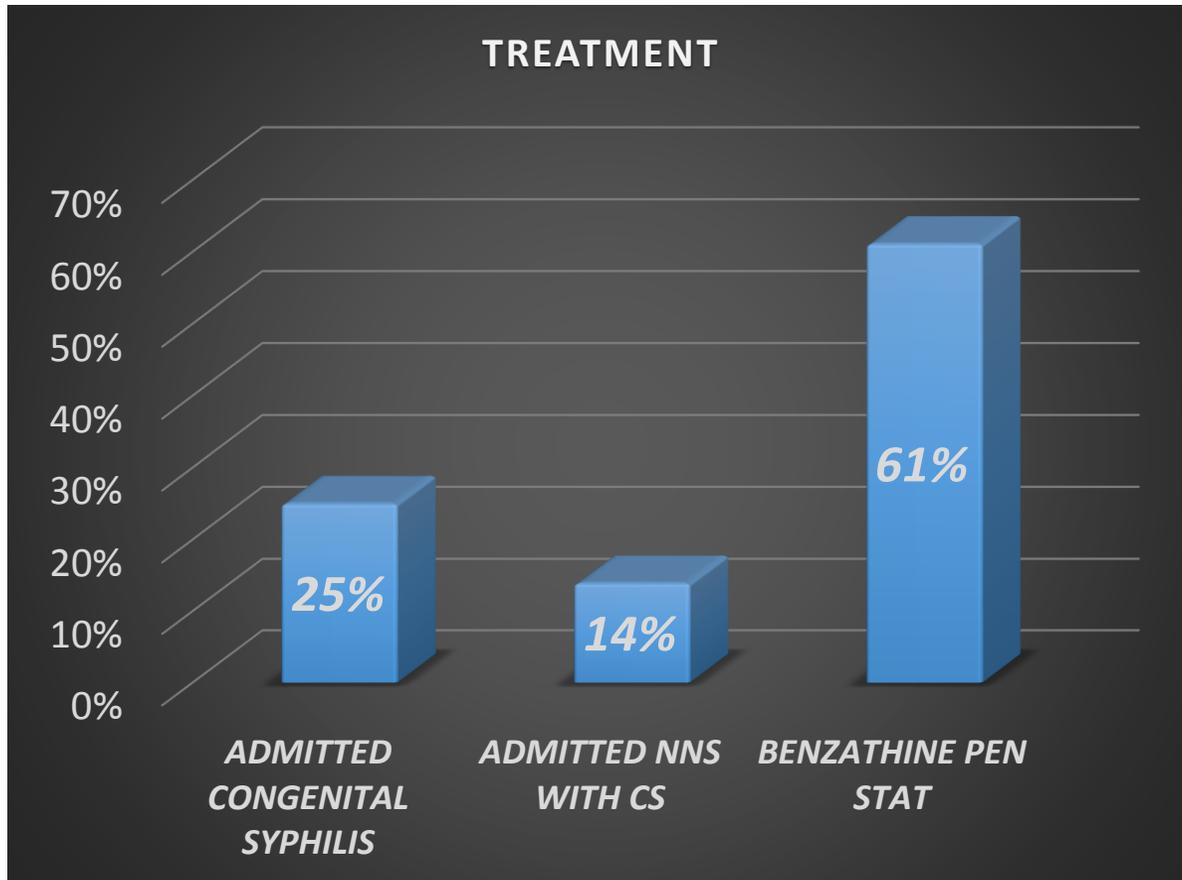
■ TERM
■ PRETERM



■ BWT >2.5KG
■ BWT <2.5KG

RESULTS

72 VDRL/TPHA POSITIVE NEONATES



FOLLOW UP

- ***Out of this, only 12% were reviewed and VDRL results showed that 80 % of them had their titre reduced***

DISCUSSION

- ***High percentage of VDRL reactive neonates are those from mothers who were partially treated or not treated. which means that neonates born to adequately treated VDRL positive mothers are protected. However information of progressive titres will give more accuracy of this information. This study could not provide this information.***
- ***Babies with clinical manifestations and positive TPHA had high mortality.***
- ***From WHO references, these babies with congenital syphilis will often have low birth weight, however my study showed that most of the neonates with positive VDRL/TPHA were term babies with normal birth weights.***

STRENGTH & LIMITATION

STRENGTH

- ***Availability of data and inexpensive***
- ***Support from health staff***

LIMITATION

- ***Delayed results from investigation***
- ***Accuracy of diagnosis (diagnosis was based on a single VDRL result)***
- ***Require more time***
- ***Exclusion of stillbirth.***

RECOMMENDATION

- ***A bigger study which include still births and progressive VDRL and TPHA titre is required to provide better understanding of the incidence of syphilis among pregnant mothers and congenital syphilis in neonates.***
- ***Improvement in antenatal visits***
- ***More education and awareness***

CONCLUSION

- ***Congenital syphilis can be asymptomatic thus we must be vigilant.***
- ***symptomatic and high VDRL titres associated with high mortality rate***

REFERENCE

- ***Retrospective reviewing of child morbidity and mortality at NRH of Solomon Islands using PRH programme as a source of primary data from March 2015 to March 2017. Steven. L. 2017, UPNG***
- ***World Health Organization. Pocket Book of Hospital Care for Children 2013. Second edition***
- ***A Manual for Health Workers. 4th edition.2017. Standard Treatment Manual for Children. Solomon Islands.***
- ***Harris P. Nagy S. Vardaxis N. Mosby's Dictionary of Medicine, Nursing and Health Professions. 2ND Australian and New Zealand Edition.***
- ***Centers for disease control and prevention. 2012 Sexually Transmitted Diseases Surveillance. Available at <http://www.cdc.gov/sTD/stats12/default.htm>. Retrieved July 15, 2014.***
- ***Centers for disease control and prevention. Congenital syphilis case definition. Available at <http://wwwn.cdc.gov/NNDSS/>. Retrieved July 15, 2014***

THANK YOU