

GBS prophylaxis audit- Prevention of GBS in newborn

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Introduction:

- Colonization of GBS in the bowel flora of adults is 20-40%
- Incidence of early onset of GBS disease (UK/Ireland) is 0.57/1000 births
- If GBS was +ve in previous pregnancy, carriage is 50% and Risk of affected baby is 1:700-1:800, and 1/5000 if screening was negative in index pregnancy
- Neonates with EOGBS disease are more likely to have respiratory distress disease and convulsions, require tube feeding, and have longer hospital stays
- Risk of affected baby with positive screening increases to 1:400 (hence IAP = Intrapartum antibiotic prophylaxis and also lack of IAP is one of the 3 factors with highest tendency for the development of EOGBS disease)

Objective:

- To ensure the national guideline for GBS prevention in newborns is being followed and intrapartum antibiotic prophylaxis is being administered where necessary

Method:

- Retrospective review of electronic records of all women delivering b/w Sept 2020 and Oct 2021 were done to identify those who had GBS in index or previous pregnancy, cross checked with notes, going back to 13 years.
- 772 cases were reviewed in total, out of which 63 risk cases were identified

Results:

- 20% had GBS in previous pregnancy and 80% in index pregnancy.
- 27% of all women with previous GBS (related to pregnancy in the past) were not identified at any point in the index pregnancy.
- 60% of patients received less than 4 hrs of antibiotics. 44% of those who required antibiotics didn't receive them.
- 60% of those who delivered within 2 hrs were preterm and 50% babies would have required antibiotics and admission to NNU anyway.
- About half of missed cases were those who had GBS in previous miscarriage or termination of pregnancy.

Results 1

Standard	Level	Number	Percentage	Reasons
Women GBS in urine receive antibiotics	100%	14/16	87.5%	1 filled by GP surgery no documentation in obs notes One seen in clinic not identified
Women with GBS in urine receive IAP	100% Excluding those that had CS intact membranes	12/13	92%	One very quick labour SRM antibiotics at start CS

Results 2

Standard	Level	Number	Percentage	Reason
GBS in pregnancy receive IAP	100% Exclude those that had CS intact membranes	20/21	95%	One woman had v quick labour SRM antibiotics at start of CS
GBS previous pregnancy offered swabs 3-5 weeks prior to delivery	100%	14/21	67%	Possibly a COVID effect – often documented IAP and no documentation offer of swab Decreasing numbers in clinics

Results 3

Standard	Level	Number	Percentage	Reason
Previously Effected Baby Receive IAP	100%	3/4	75%	One woman delivered too quickly to receive antibiotics – 2 hours after SRM
PROM < 37 weeks receive IAP	100%	5/6	83%	One woman delivered within an hour
Labour expedited when SROM 34-37 weeks	100%	1/1	100%	

Results 4

Standard	Level	Number	Percentage	Reason
Antibiotics given prior to prostin for IOL multips	100%	11/14	78%	1 GBS in miscarriage 13 wk not recognised 2 GBS previous pregnancy not recognised (recent) CMW informed as pregnant again
Antibiotics given prior to ARM for IOL primips	100%	6/9	67%	1 GBS medical TOP 2011 not documented 1 Propress removed path CTG ARM cat 1 CS Previous GBS not recorded no swabs ARM cat 1CS hrs later

Why Women did Not get antibiotics Where Gp B strep risk Not recognised

Reason	Number	
Previous registered birth and over Gp B strep	8	All required IAP or swabs at 34 wks
Previous misc < 24 weeks	3	All required IAP or swabs 34 wks
Previous TOP	2	Pre 2013 <13 wks all required IAP/Swab 34 wks

Positive Points:

- Everyone with +ve GBS in the index who required antibiotics had some antibiotics unless they delivered too quickly to complete them
- 60% of those who delivered within 2 hrs were preterm and 50% babies would have required antibiotics and admission to NNU anyway

Conclusion:

- Improvement in identifying patients with previous GBS is needed.
- A GBS stamp was suggested and implemented. Safety first Memo was included in the stamp i.e. – previous miscarriage/termination of pregnancy is still indications for antibiotics.
- The leaflet was modified to increase emphasis on early presentation for those women having history of GBS