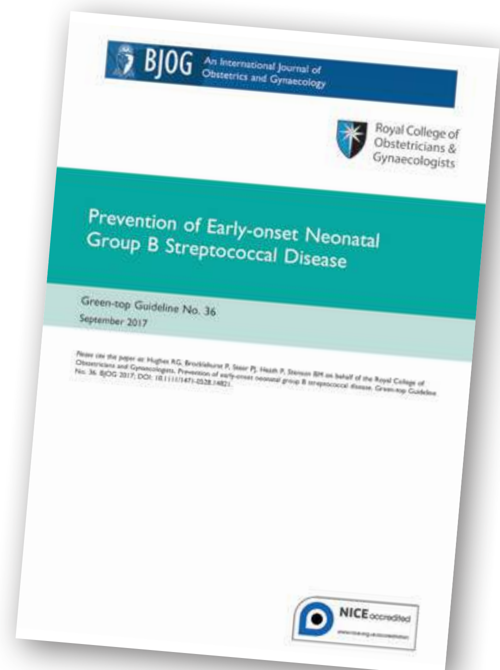
WORKING
TO **STOP**
GBS INFECTION
IN BABIES.

Updated Group B Strep Guidelines

Key points for health professionals compiled by Group B Strep Support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Royal College of Obstetricians & Gynaecologists

Prevention of Early-onset Neonatal Group B Streptococcal Disease

Green-top Guideline No. 36
September 2017

NICE accredited

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Updated Group B Strep Guidelines

Key points for health professionals

Group B Streptococcus (GBS or group B Strep) is the most common cause of severe infection in newborn babies, and of meningitis in babies under age 3 months. On average in the UK:

- 2 babies a day develop group B Strep infection
- 1 baby a week dies from group B Strep infection
- 1 baby a week survives group B Strep infection with long term disability

Most GBS infection is of early onset, presenting in babies within the first 6 days of life, and usually within the first 12 hours after birth. Between age 7 days and 3 months, these infections are rare, and in babies over after age 3 months they are very rare indeed.

Most early-onset GBS infections (in babies aged 0-6 days) can be prevented by giving intravenous antibiotics in labour to women whose babies are at raised risk of developing GBS infection. In the UK, women are offered IV antibiotics in labour is based on specific risk factors.

The Royal College of Obstetricians and Gynaecologists (RCOG) published a major update to their clinical guideline on preventing group B Strep infection, their Green-top Guideline (GTG) No 36[1] on 13 September 2017. There are substantial changes from the previous edition, published in 2012, and this leaflet summarises the key recommendations.

New recommendations are in italics, and the GTG paragraph numbers are given in brackets.

1. Hughes RG, Brocklehurst P, Steer PJ, Heath P, Stenson BM on behalf of the Royal College of Obstetricians and Gynaecologists. Prevention of early-onset neonatal group B streptococcal disease. Green-top Guideline No. 36. BJOG 2017; DOI: 10.1111/1471-0528.14821.

Get the facts and get involved at: **www.gbss.org.uk**

1. What should you do during a woman's pregnancy?

- *Provide all pregnant women with a patient information leaflet about group B Strep (GTG 4.1).* A suitable leaflet has been produced jointly by the RCOG and Group B Strep Support and from 2018 will be available from www.gbss.org.uk/RCOG.
- *If a woman has had a GBS urinary tract infection (>10^5 cfu/ml) during her pregnancy, treat her at diagnosis with oral antibiotics,* and make sure also to offer her IV antibiotics in labour (GTG 6.1).
- Treating GBS found on a vaginal or rectal swab is not recommended in pregnancy before labour starts. The woman should be offered IV antibiotics when labour starts (GTG 6.2).

2. Who should be offered antibiotics in labour?

Women should be offered antibiotics effective against GBS in labour who:

- *carried GBS in a previous pregnancy (or alternatively testing - see below) (GTG 5.3).*
- had a previous baby who had GBS infection (GTG 5.4).
- had GBS in her urine during the pregnancy (GTG 7.1).
- had GBS found on a vaginal or rectal swab (via an NHS or other test) (GTG 6.3).
- *are in preterm labour (before 37 completed weeks) (GTG 7.3).*
- have a temperature of 38°C or greater (in which case, offer broad-spectrum antibiotics that also cover GBS) (GTG 7.2).

3. When is an offer of antenatal testing appropriate?

If a woman carried GBS in a previous pregnancy and the baby did not develop GBS disease, an Enriched Culture Medium (ECM) swab test for GBS carriage at 35-37 weeks (or earlier if preterm delivery is anticipated) should be offered (GTG 5.3).

The ECM test is not the same as a standard swab for a vaginal discharge. Swabs should be taken both from the low vagina and rectum (GTG 9.1), with samples cultured using enriched culture media (9.3) and processed ASAP (GTG 9.2). You should specifically state 'test for GBS' on the request form (GTG 9.3).

If positive, the woman should be offered antibiotics in labour. If negative, she can be reassured that the risk of early onset neonatal GBS disease is very low (about 1 in 5,000). If she declines the test, she should be offered antibiotics in labour (GTG 5.3).

The full Green-top guideline is free to download from:
www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36

Key recommendations from Royal College of Obstetricians & Gynaecologists' 2017 Prevention of Early-onset Neonatal Group B Streptococcal (GBS) Disease Green-top Guideline No 36

WORKING TO **STOP** GBS INFECTION IN BABIES.

PROVIDE ALL PREGNANT WOMEN WITH GBS INFORMATION LEAFLET

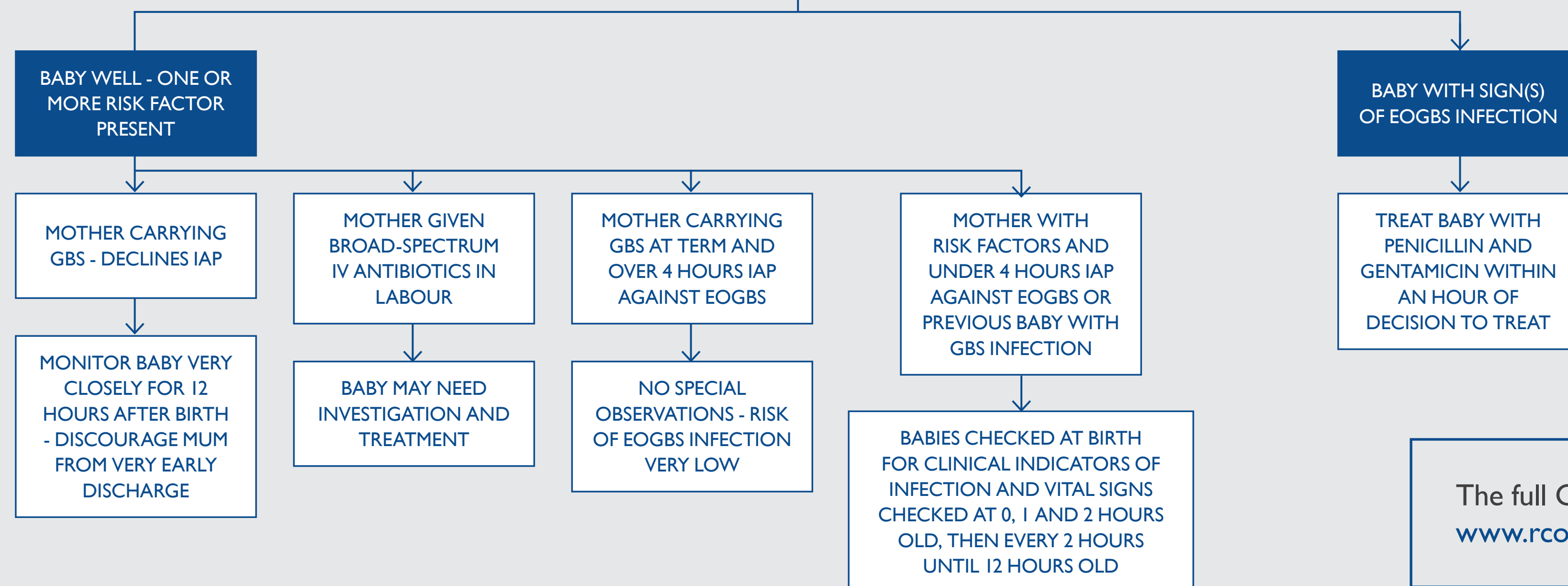
VAGINAL DELIVERY PLANNED

- PREVIOUS BABY WITH GBS DISEASE → OFFER IAP
- CARRIED GBS IN A PREVIOUS PREGNANCY → EXPLAIN LIKELIHOOD OF GBS CARRIAGE 50% → OFFER ECM TESTING 3-5 WEEKS BEFORE ANTICIPATED DELIVERY DATE (USUALLY 35-37 WEEKS)
  - IF CHOOSES TEST AND RESULT IS POSITIVE, OFFER IAP
  - IF DECLINES TEST, OFFER IAP
- PRELABOUR RUPTURE OF MEMBRANES
  - PRETERM
    - OFFER ORAL ERYTHROMYCIN 250MG 4 TIMES A DAY FOR A MAXIMUM OF 10 DAYS OR UNTIL LABOUR STARTS → OFFER IAP ONCE LABOUR CONFIRMED
  - TERM
    - GBS POSITIVE TEST RESULT THIS PREGNANCY → OFFER IMMEDIATE IAP AND INDUCTION OF LABOUR AS SOON AS REASONABLY POSSIBLE
    - UNKNOWN OR NEGATIVE GBS CARRIAGE STATUS → OFFER INDUCTION OF LABOUR IMMEDIATELY OR EXPECTANT MANAGEMENT UP TO 24 HOURS NO IAP
- LABOUR
  - PRETERM LABOUR → RECOMMEND IAP
  - TERM LABOUR
    - GBS POSITIVE TEST RESULT THIS PREGNANCY → OFFER IAP
    - NO KNOWN RISK FACTORS FOR EOGBS DISEASE → NO IAP
    - PYREXIA (38°C AND HIGHER) → OFFER BROAD SPECTRUM ANTIBIOTICS, INCLUDING COVER AGAINST EOGBS

ECM testing recommended, following PHE's UK standards for microbiology investigations B58. See: www.gov.uk

GBS BACTERIURIA IN CURRENT PREGNANCY → ORAL ANTIBIOTICS IF GBS UTI → OFFER IAP

CAESAREAN SECTION PLANNED: NO LABOUR AND NO MEMBRANE RUPTURE → NO IAP



IAP = Intrapartum Antimicrobial Prophylaxis

Benzyl Penicillin recommended.
If penicillin-allergic, a cephalosporin.
If severely allergic, vancomycin.
Clindamycin not recommended.

Offer ASAP once labour has started.

NICE CG149, point 1.2.3.1:

"If there are any risk factors for early-onset neonatal infection or if there are clinical indicators of possible early-onset neonatal infection perform a careful clinical assessment without delay. Review the maternal and neonatal history and carry out a physical examination of the baby including an assessment of vital signs."

The full Green-top guideline is free to download from:
www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36

4. Which IV antibiotic should I use?

If the woman has agreed to have the IV antibiotics in labour, they should be given as soon as possible once labour has started, and at regular intervals until the baby is born (GTG 9.4).

- Benzylpenicillin (Penicillin G) is the antibiotic of choice, 3g given intravenously as soon as possible once labour has started and then 1.5g every 4 hours until delivery (GTG 9.4).
- *In penicillin-allergic women, a cephalosporin should be used (e.g. Cefuroxime 1.5 g loading dose followed by 750 mg every 8 hours) unless she has had a severe allergic reaction (swelling of the skin or throat, difficulty breathing, and/or fainting/low blood pressure), in which case, vancomycin (1g every 12 hours) should be used (GTG 9.5).*
- *Clindamycin is not recommended as the current resistance rate in the UK is high (GTG 9.5).*

5. What happens around labour and delivery?

- *Carrying group B Strep doesn't affect the method of induction - simply offer IV antibiotics as soon as labour is established (GTG 6.4).*
- *Carrying GBS does not mean that membrane sweeps are contraindicated (GTG 6.5).*
- A woman having a planned Caesarean section doesn't need IV antibiotics specifically for GBS, as long as her waters haven't broken and she's not in labour (GTG 6.6 & 7.3).
- *A woman carrying GBS whose waters break at term should be offered IV antibiotics immediately, and induction of labour as soon as reasonably possible (GTG 7.1).*
- *A woman not carrying GBS or whose GBS carriage status is unknown and whose waters break at term should be offered induction of labour immediately or at any time up to 24 hours after the waters broke, depending on her preference (GTG 7.1).*
- *Women whose waters break preterm (before 37 completed weeks) should be offered IV antibiotics once labour is confirmed or induced, regardless of whether or not they are known to carry GBS (GTG 8.1).*
- *As long as IV antibiotics are offered in labour to a woman carrying GBS, labour or birth in water (a waterbirth) is not contraindicated (GTG 7.5).*
- *Adverse effects of IV antibiotics in labour are rare but include allergy and possibly an effect on the microbiome (bacterial flora) of the newborn baby. Measured effects so far are slight and probably temporary (up to three months) if penicillin is used (GTG 9.7).*
- *Vaginal cleansing isn't recommended as there's no evidence it reduces the risk of GBS infection in the newborn baby (GTG 10).*

6. After the baby is born:

- *If a woman carrying GBS declined IV antibiotics in labour, her baby should be monitored very closely for 12 hours after birth, and Mum should be discouraged from very early discharge (GTG 9.6).*
- *If a mother carrying GBS gave birth at term and received IV antibiotics against GBS for over 4 hours before birth, her newborn baby doesn't need any special observations, as the risk of GBS infection is very low (GTG 11.2).*
- *If a mother received broad-spectrum IV antibiotics in labour for reasons other than GBS, her newborn baby may still need investigation and treatment (GTG 11.2).*
- *If a mother has previously had a baby who developed GBS infection (GTG 11.6) OR had risk factors for EOGBS infection, but did not receive more than 4 hours of IV antibiotics before birth (GTG 11.3) babies should be checked at birth for clinical indicators of infection, and their vital signs should be checked at 0, 1, and 2 hours old, then every 2 hours until 12 hours old.*
- *Babies without signs of EOGBS infection and without known risk factors are at a low risk of developing EOGBS infection and shouldn't be given preventative antibiotics as routine (GTG 11.4).*
- *Babies showing signs of EOGBS infection should be treated with penicillin and gentamicin within an hour of the decision to treat (GTG 11.5).*
- *Women should be encouraged to breastfeed, whether they carry group B Strep or not (GTG 11.7).*

7. Signs of GBS infection to look out for in a newborn baby:

Families should be encouraged to seek urgent medical attention if their baby (GTG 11.1):

- *Is grunting, has noisy breathing, is not breathing at all, moaning, or seems to be working hard to breathe when you look at the chest or tummy*
- *Is very sleepy and/or unresponsive*
- *Has inconsolable crying*
- *Is unusually floppy*
- *Is not feeding well or not keeping milk down*
- *Has a high or low temperature, and/or their skin feels to be too hot or cold*
- *Has changes in their skin colour (including blotchy skin)*
- *Has an abnormally fast or slow heart rate or breathing rate*
- *Has low blood pressure (only identifiable by hospital tests)*
- *Has low blood sugar (only identifiable by hospital tests)*

The full Green-top guideline is free to download from:
www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36

8. What do I do next?

- Download the RCOG's Green-top Guideline from: www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36
- Ask for your Trust's guidelines to be updated urgently to reflect the latest RCOG GBS guideline.
- Obtain free copies of the joint RCOG GBSS patient information leaflet on group B Strep from Group B Strep Support on 01444 416176 or via www.gbss.org.uk/RCOG.
- If women who want to test for GBS carriage during pregnancy are unable to access an ECM test in your Trust, signpost them to www.gbss.org.uk/test for suppliers that follow PHE's UK SMI B58. Cost from under £40 for home testing pack and reporting.
- If women want more information about group B Strep, suggest they contact our Helpline on 01444 416176.

Sources and acknowledgements

The information in this leaflet is based on RCOG Green–top Guideline No. 36 Prevention of Early-onset Neonatal Group B Streptococcal Disease (2017).

Charity Group B Strep Support was founded in 1996, with the over-arching objective of preventing group B Strep infection in newborn babies. We support families affected by group B Strep, educate health professionals and the public about group B Strep, and support research into better understanding of group B Strep infection.

WORKING TO **STOP** GBS INFECTION IN BABIES.

Search Group B Strep Support

#GBSaware

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Registered charity number: 1112065 Registered company number: 5587535