**SUPPLEMENTARY MATERIAL**

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| **References** | **Language** | **No. of****Pregnant women/gestation period** | **Biological sample collection sites** | **Analyzed antibiotic susceptibility and resistance** | **Capsular serotyping methods** | **Detected serotypes** | **Typeable No. (NT)** |
| **Chukwu** ***et al.* 2015** | English | 413 pregnant women16–38 weeks | Biological samples: vaginal and rectal | No | Latex agglutination (specific antisera against types Ia, Ib, and II–IX)Lagglutination test kit (Staten Serum Institute, Copenhagen, Denmark) (Slotved et al., 2003) Conventional PCR detected on 2% agarose gel (Borchardt et al. 2004, Kong et al. 2005) | Ia, Ib, II, III, IV, andV | Yes |
| **Mukesi *et al.* 2019** | English | 530 pregnant women(Namibia)100 pregnant women(South Africa)35–37 weeks  | One vaginal and one rectal swab | No | Multiplex PCR with capsular-specific primer pairs (Adapted from Poyart et al., 2007) Ethidium bromide stained 1% agarose gel electrophoresis at 120 V for 45 min | Ia, Ib, II, III, IV, andV | No |
| **[Slotved](https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1419-0%22%20%5Cl%20%22auth-1) *et al.* 2017** | English | 400 pregnant womenMamprobi 200Dangme West 20035–37 weeks | A rectal and a vaginal swabQuestionnaire | No | GBS latex serotyping kitStrep-B-Latex kit (Statens Serum Institute, Denmark) | Ia, II, III, IV, V, VII, VIII, and IX | No |
| **Belard *et al.*2015** | English | 549 pregnant womenAt birth  | Rectovaginal swabs | Yes | Capsular polysaccharide serotypes Ia, Ib, and II–IX: latex agglutination (Strep-B-latex kit; article 54991 / Lot La- 1-4, Statens Serum Institute, Denmark). The isolates were further confirmed by multiplex PCR, Creti et al. | Ia, Ib, II, III, and V | No |
| **A’Hearn-Thomas** ***et al.*2019** | English | 274 pregnant women≥35 weeks | Rectovaginal swabs | No | Real-time PCR (Breeding 2016)Colonization cases were confirmed by isolation of each individual serotype and confirmation by latex agglutination or real-time PCR Immulex Latex Agglutination Streptococcus B kit (Staten Serum Institute; Copenhagen, Denmark) | Ia, Ib, II, III, IV, and V | No |
| **Kwatra *et al.*2014** | English | 661 pregnant women20th–25th weeks62126th–30th weeks59531st–35th weeks521>37 weeks | Vaginal and rectal swabsQuestionnaire | No | Isolates were serotyped by latex agglutination.Specific antisera againsttype Ia, Ib, and CPS antigens.II–IX (Statens Serum Institute, SSI, Sweden) (Afshar et al, 2011) Serological isolates Non-typable Characterized by PCR (Poyart et al, 2007) | Ia, Ib, II, III,IV, V, and IX | Yes |
| **Burcham *et al.*2019** | English | 39 strainsisolated from pregnant women Gestational period: unknown  | Vaginal tract | No | PCR(Poyart et al 2007) | Ia, Ib, II, III, IV, andV | No |
| **Lu *et al.*2014** | English | 2850 pregnant women35–37 weeks | Vaginorectal swab | Yes | PCR (Poyart et al 2007, Imperi et al 2010, Yao et al 2013) | Ia, Ib, II, III, V, VI, and VIII | Yes |
| **Yan *et al.*2016** | English | 231 pregnant womenGestational period: unknown  | Vaginorectal Swab  | Yes | Multiplex polymerase chain reaction (PCR) (Imperi et al, 2010) | Ia, Ib, II, III, V, VI, and VII | Yes |
| **Wang *et al.* 2015** | English | 863 pregnant women35th–37thweeks | Rectal and vaginal swabsInterview | Yes | Strep-B-Latex Kit, Statens Serum Institute, Copenhagen, Denmark), Yao et al. 2013 | Ia, Ib, II, III, and V | Yes |
| **Ji *et al.*2017** | English | 7726 pregnant women35th–37thweeks | A single rectal vaginal swab | No | Latex agglutination (Strep-B-Latex kit; Statens Serum Institute, Copenhagen, Denmark) | Ia, Ib, III, V, VI, andVIII | Yes |
| **Wang *et al.* 2018** | English | 104 pregnant women(≥28 weeks of gestation) | Anogenital swabsInterviewQuestionnaire | No | Multiplex PCR1.5% agarose gel electrophoresis and stained with ethidium bromideThe products were visualized and documented using the Image Quant™ LAS 500 (GE Health Care®, UK). | Ia, Ib, III, IV, V, VI | No |
| **Lin *et al.*2016** | English | Invasive blood strains (*n*=126) and colonizing strains from anogenital samples (*n*=8)Gestational period Not informed | Vaginal and rectal swab | No | Tested for serotypes by multiplex PCR assay (Imperi et al, 2010) and pulsed field gel electrophoresis (PFGE). Serotype VI isolates were further analyzed by MLST. | Ib, III, V, and VI | No |
| **Kunze *et al.*2011** | English | 869 pregnant women(35–37 weeks) | Vaginal and rectal culturesmedical record | No | Agglutination with specific antisera for capsular serotypes I–V according to the manufacturer's instructions (Denka Seiken, Tokyo, Japan) | Ia, Ib, II, III, IV, and V | Yes |
| **Turner *et al.*2012** | English | 549 pregnant women28–30 weeks | Vaginal rectal swab | Yes | Latex agglutination (Strep-B-Latex kit, Statens Serum Institute, Copenhagen, Denmark)Multiplex PCR (Afshar et al, 2011) | Ia, Ib, II, III, IV, V, VI, and VII | Yes |
| **Saha *et al.*2017** | English | 1151 pregnant womenAt birth | Vaginal and rectal swabs Rectal swabs Vaginal swab  | No | GBS type-specific antisera against capsular antigens Ia, Ib, and II–IX (Statens Serum Institute, SSI, Denmark), following the method described by Slotved et al. 2007multiplex PCR | Ia, Ib, II, III, IV, V, VI, and VII | No |
| **Clouse *et al.*2019** | English | 200 pregnant womenGestational period: unknown  | Single vaginal-rectal swabInterview Questionnairemedical record | No | Nested PCR in real time (Khatami et al 2019)confirmed with latex agglutination (IMMULEX™ kitSTREP-B, Statens Serum Institute, Hillerød, Denmark) | Ia, Ib, III, and V | No |
| **Pinto *et al.*2018** | English | 6692 pregnant women35–37 weeks | Vagina and rectum (two swabs)laboratory recordmedical record | No | Multiplex PCR for serotypes Ia, Ib, and II–IX using the primers described by Poyart et al. and Imperi et al. 2010 | Ia, Ib,II,III,IV,V, VI | Yes |
| **Brzychczy-włoch *et al.*2012** | English | 1176 pregnant women35–37 weeks | One swab from the lower vagina and one from the rectumRectum and vagina 280 (80%)Vagina 33 (9%)Rectum 40 (11%) | No | Specific initiators (Genomed, Poland) (Poyart et al, 2007)PCR products were resolved on 2% agarose gel with 0.25 µg/mL ethidium bromide | Ia, Ib, II, III, IV, and V | No |
| **Andrade *et al.* 2017** | English | 363 pregnant women35–37 weeks | Vaginal and rectal swab | Yes | Serotyping with commercial latex agglutination test (containing reagents for serotypes Ia, Ib, and II–IX; Strep-B-Latex Kit; Statens Serum Institute, Copenhagen, Denmark)Multiplex PCR was performed according to Imperi et al 20102% gel electrophoresis in TAE buffer | Ia, Ib, II, III, and V | No |
| **Soares *et al.* 2014** | English | 33 strainsisolated from pregnant women>25 weeks | Vaginal swab | Yes | Serotyped by agarose immunoprecipitation using novel locally produced sera and HCl antigen extracts from cultures | Ia, Ib, II, III, V | Yes |
| **Botelho *et al.*2018** | English | 3647 pregnant women35th–37th weeks | A single ano-vaginal samplemedical record | Yes | Ouchterlony double immunodiffusion method after HCl extraction of capsular polysaccharidesspecific antisera (provided by the Centers for Disease Control and Prevention, CDC, GA, USA) against types Ia-VIII | Ia, Ib, II, III, IV, and V | Yes |
| **de Almeida Corrêa*****et al.*2011** | English | 51 isolatedGestational period: unknown  | Vaginal swab | Yes | The strains were serotyped byAgarose immunoprecipitation using antisera to type Ia, Ib and II-VIII antigens | Ia, Ib, II, III, IV,V, and VIII | Yes |
| **Nascimento 2019** | Portuguese | 292 strainsisolated from pregnant women | Urine Vaginal Secretion | Yes | Multiplex PCR Imperi et al 2010 | Ia, Ib, II, III, V, and IX | Yes |
| **Feuerschuette 2018** | Portuguese | 316 pregnant women35–37 weeks | Anogenital swabsInterviewQuestionnaire | Yes | Multiplex PCR Primers (Feuerschuette, 2018)1.5% agarose gel electrophoresis and stained with ethidium bromideThe products were visualized and documented using the Image Quant™ LAS 500 (GEHealth Care®, UK). | Ia, Ib, II, III, IV, V, VII, and VIII | No |
| **Siqueira 2017** | Portuguese | 501 pregnant women35–37 weeks | A rectal vaginal swab | Yes | Latex agglutination with the Immulex® Strepto B test manufactured by the Statens Serum Institute | Ia, Ib, II, III, V, VIII | Yes |
| **Botelho 2014** | Portuguese | 250 pregnant women35th week | Vagina, the anus, and the vagina-anus combinationpersonal data sheet | No | Multiplex PCR Imperi et al 2010Agarose gel electrophoresis (UltraPure Agarose, Invitrogen, USA) at 2% in 0.5X TBE buffer. After treatment with ethidium bromide at 0.5 µg/mL, the presence/absence of bands of the expected size was analyzed using a 100 pb marker (Invitrogen, USA) and transillumination with UV light. | Ia, Ib, II, III, and V | No |
| **Hassan and Saleh, 2019** | English | 200 pregnant women34–37 weeks | Vaginal swabs | No | Antisera related to serotypes Ia, Ib, and II–IXcapsular polysaccharide antigen (Immulex™ strep-B, Diagnostics Denmark) | Ia, Ib, II, III, IV, V, and VI | No |
| **Ali *et al.* 2019** | English | 280 pregnant womenAt birth | A vaginal and a rectal swabQuestionnaire Interview | No | Antisera to serotypes Ia, Ib, II, III, IV, V, VI, VII, VIII, and IX(Statens Serum Institute, Denmark)(Slotved et al, 2003) | Ia, Ib, II, III, and V | Yes |
| **Teatero *et al.*2017** | English | 102 isolated pregnant women35–37 weeks | Vaginal/rectal swabs | Yes | Serotyping, by latex agglutination, (Slotved et al, 2007)PCR capsular typing of non-typeable strains was performed using a multiplex PCR scheme (Yao, 2013) | Ia, Ib, II, III, IV, V, and VI | Yes |
| **López** ***et al.*2018** | English | 95 pregnant women35–37 weeks | Rectal-vaginal and endocervical swabs | Yes | Multiplex PCR (Poyart et al, 2007) | Ia, Ib, II, III, IV, and V | No |
| **Elikwu *et al.*2016** | English | 300 pregnant women 28 weeks and at delivery | Vaginorectal swab | No | Multiplex PCR (Imperi et al 2010)gel electrophoresis | Ia, Ib, II, III, V, and VI | No |
| **Oviedo *et al.*2013** | English | 3125 pregnant women35–37 weeks | Rectovaginal swab | Yes | Strep-B Latex (Statens Serum Institute, Denmark) | Ia, Ib, II, III, V and IX | Yes |
| **Morozumi *et al.*2015** | English | 122636–39 weeks | Vaginal swabExam registration form | No | Rt-PCR *(Poyart et al 2007*) | Ia, Ib, II, III, IV, V, VI, and VIII | Yes |
| **Le Doare** ***et al.*2016** | English | 750 pregnant womenAt birth | Rectovaginal SwabsQuestionnaire | No | Conventional PCR and identified using gel PCR and agarose electrophoresis (Imperi et al, 2010) | Ia, Ib, II, III, and V | Yes |
| **Seoud et al.2010** | English | 775 pregnant women At birth | Vagina and rectumInterview Questionnaire | No | Molecular serotyping was performed using PCR and sequencing | Ia, Ib,II, III, IV, and V | Yes |
| **Lee** ***et al.*2019** | English | 150 pregnant women16–40 weeks | Vaginal-rectal swab | No | PCR multiplex (Kong et al 2002; Slotved et al 2007) | Ib, II, III, IV, V, VI | No |
| **Sadeh *et al.*2016** | English | 100 GBS strains isolated from 237 pregnant women. Gestational period: unknown  | Rectovaginal swabs | No | PCR multiplex (Poyart, 2007) | Ia, Ib, II, III, and V | No |
| **Mavenyengwa *et al.*2010** | English | 121 isolates from pregnant women Gestational period: unknown | Vaginal samples | No | Molecular serotyping (PCR) | Ia, Ib, II, III, V | Yes |
| **Fröhlicher *et al.*2014** | English | 364 isolates from pregnant womenAny time of pregnancy | Vaginal, cervical or Vaginal-perianal swab | Yes | Latex, Statens Serum Institute, Copenhagen, Denmark)Non-typeable strains were examined by polymerase chain reaction (PCR) analysis, Kong 2002 | Ia, Ib, II, III, IV, V, VI, VII, VIII, and IX | No |
| **Shabayek *et al.*2014** | English | 264 pregnant womenGestational period: unknown | Vaginal swab | No | Serotyped (types Ia, Ib, and II–VIII)with the Essum GBS Serotyping Kit (Essum AB, Sweden)Multiplex PCR (Imperi et al 2010; Kong et al 2002) | Ia, Ib, II, III, IV, V, and VI | No |
| **Kimura *et al.*2013** | English | 122 pregnant women141 isolates1st group: 34, 23rd–25th weeks2nd group 61, 34th–36th weeks3rd group: 27,two periods | Vaginal samples | No | Agglutination with antisera (Denka-Seiken) against Ia, Ib, II, III, IV, V, VI, VII, and VIII 31 clinical isolates Notypable (PCR), Poyart et al 2007 | Ia, Ib, II, III, V, VI, VII, and VIII | Yes |
| **García *et al.*2011** | Spanish | 130 pregnant women35th–37th weeks | A vaginal and a rectal swab | No | Serotyping for *Streptococcus agalactiae* (Strep-B-Latex® Statens Serum Institute kit) | Ia | Yes |
| **Liébana-martos *et al.*2015** | Spanish | 1180 pregnant women35th–37th weeks | Vaginal and rectal samples | Yes | Latex agglutination (Statens Serum Institut, Denmark) | Ia, Ib, II, III, IV, V, VII, and IX | Yes |
| **Liakopoulos *et al.*2014** | English | 171 vaginal isolates | Vaginal sample | No | Coagglutination method using antisera against types I to VIII (Essum, Umeå, Sweden) | Ib, III, IV and V | No |
| **Brigtsen *et al.*2015** | English | 1739 pregnant womenAt birth | Vaginal-rectal sample | No | Latex agglutination(Reagents Ia, Ib, and II–IX; Strep-B-Latex kit, Statens Serum Institute, Copenhagen, Denmark)Capsular molecular typing (Bochardt et al., 2004; Imperi et al., 2010; Kong et al., 130 2002;Poyart et al., 2007) | Ia, Ib, II, III, IV, V, VI, VIII, and IX | Yes |
| **Furfaro *et al.* 2019** | English | 814 pregnant women≤22 weeks and ≥33 weeks | A vaginal and a rectal swabQuestionnaire | Yes | Multiplex PCR (Furfaro et al 2017)Standard PCR (Imperi et al 2010) | Ia, Ib, II, III, IV, V, VI, VIII, and IX | Yes |
| **Hong *et al.* 2010** | English | 404535th–37th weeks | Two different anorectal vaginal swabs | No | Group B typing serums (Denka Seiken, Tokyo, Japan).These sera contained six type-specific agglutinins against GBS serotypes, including Ia, Ib, II, III, IV, and V. | Ia, Ib, II, III, IV, V | Yes |