#### Supplemental Digital Content 5: Supplemental Figures S01-S21

Table of Contents		
Section:		Contents
Supplemental Digital	Figure S01	Meta-analysis of pathogen prevalence for EOS
Content 5.	Figure S02	Meta-analysis of pathogen prevalence for LOS
	Figure S03	Meta-analysis of pathogen prevalence for Group B Streptococcus (GBS) in EOS vs. LOS
	Figure S04	Meta-analysis of pathogen prevalence for GBS in EOS vs. LOS
	Figure S05	Meta-analysis of pathogen prevalence for <i>Acinetobacter</i> spp. in EOS vs. LOS
	Figure S06	Meta-analysis of pathogen prevalence for Citrobacter spp. in EOS vs. LOS
	Figure S07	Meta-analysis of pathogen prevalence for Klebsiella spp. in EOS vs. LOS
	Figure S08	Meta-analysis of pathogen prevalence for <i>Enterobacter</i> spp. in EOS vs. LOS
	Figure S09	Meta-analysis of pathogen prevalence for Serratia spp. in EOS vs. LOS
	Figure S10	Meta-analysis of pathogen prevalence for <i>Enterococcus</i> spp. in EOS vs. LOS
	Figure S11	Meta-analysis of pathogen prevalence for S. aureus in EOS vs. LOS
	Figure S12	Meta-analysis of pathogen prevalence for Salmonella spp. in EOS vs. LOS
	Figure S13	Meta-analysis of pathogen prevalence for <i>Pseudomonas</i> spp. in EOS vs. LOS
	Figure S14	Meta-analysis of pathogen prevalence for <i>Proteus</i> spp. in EOS vs. LOS
	Figure S15	Meta-analysis of pathogen prevalence for S. pyogenes spp. in EOS vs. LOS
	Figure S16	Risk of bias graphs LFK index for gram-negative pathogens
	Figure S17	Risk of bias graphs LFK index for gram-negative pathogens part 2
	Figure S18	Risk of bias graphs LFK index for gram-positive pathogens
	Figure S19	Risk of bias graphs for LFK index of gram-negative LOS and EOS and
	Figure S20	Risk of bias graphs for LFK index of HIC and LMICs for LOS and EOS and prevalence comparisons
	Figure S21	Pathogens responsible for EOS and LOS



#### Meta-analysis of species prevalence in early-onset neonatal sepsis (%)

S01. Meta-analysis of pathogen prevalence in Early-onset neonatal sepsis

#### Meta-analysis of species prevalence in late-onset neonatal sepsis (%)

ainetebaeter enn		23 (93 % 01)
Acinetobacter spp. Subtotal (I^2 = 87.01%, p = 0.00)	$\diamond$	7.98 (5.16, 11.27)
Citrobacter spp. Subtotal (I^2 = 56.54%, p = 0.01)	$\diamond$	2.40 (0.51, 5.21)
Enterobacter spp. Subtotal (I^2 = 81.90%, p = 0.00)	$\diamond$	6.70 (4.25, 9.58)
Escherichia spp. Subtotal (I^2 = 84.93%, p = 0.00)	$\diamond$	12.94 (9.81, 16.39)
Klebsiella spp. Subtotal (I^2 = 86.48%, p = 0.00)	<	31.30 (26.82, 35.96)
Neisseria spp. Subtotal (I^2 = .%, p = .)	$\sim$	2.62 (0.00, 11.43)
Other gram negative Subtotal (I^2 = 87.53%, p = 0.00)	$\diamond$	5.48 (2.59, 9.18)
Proteus spp. Subtotal (I^2 = 73.10%, p = 0.00)	$\diamond$	2.22 (0.00, 7.27)
Pseudomonas spp. Subtotal (I^2 = 65.51%, p = 0.00)	$\diamond$	4.71 (2.93, 6.81)
Salmonella spp. Subtotal (I^2 = .%, p = .)	<b>&gt;</b>	1.34 (0.31, 2.85)
Serratia spp. Subtotal (I^2 = 93.47%, p = 0.00)	$\langle \rangle$	5.58 (1.65, 11.22)
Others		
Enterococcus spp. Subtotal (I^2 = 83.03%, p = 0.00)	$\diamond$	7.07 (4.61, 9.95)
Listeria spp. Subtotal (I^2 = 50.67%, p = 0.07)	0	0.31 (0.00, 1.43)
Other gram positive Subtotal (1^2 = 81.19%, p = 0.00)	$\diamond$	6.02 (3.13, 9.63)
Staphylococcus aureus Subtotal (1^2 = 92.85%, p = 0.00)	$\langle \rangle$	20.00 (14.72, 25.83)
Streptococcus agalactiae Subtotal (1 <sup>A</sup> 2 = 87.76%, p = 0.00)	$\diamond$	4.48 (2.00, 7.73)
Streptococcus pneumoniae Subtotal (1 <sup>A</sup> 2 = .%, p = .)	0	2.12 (0.00, 6.67)

S02. Meta-analysis of pathogen prevalence in Late-onset neonatal sepsis

## Meta-analysis of the prevalence of *Streptococcus agalactiae* in early- versus late-onset neonatal sepsis (%)



S03. Meta-analysis of Streptococcus agalactiae (GBS) prevalence in Early- versus Late-onset neonatal sepsis

Meta-analysis of the prevalence of Acinetobacter spp. in early- versus late-onset neonatal
sepsis (%)

Early-constrained sequids Leave at al. 2019 - 112, 412, 268, 113, 112, 426, 112, 426, 412, 2018 - 124, 442, 268, 113, 114, 114, 2019 - 124, 442, 2018 - 148, 442, 2018 - 148, 442, 2018 - 148, 442, 2019 - 148, 423, 2019 - 148, 423, 2019 - 148, 423, 2019 - 148, 423, 2019 - 158, 428, 428, 428, 428, 428, 428, 428, 42	lay			20 (05% 01)	Weight
Lamba et al. 2017 Polytrel et al. 2018 Polytrel et al. 2019 Chauhan et al. 2019 Chauhan et al. 2019 Chauhan et al. 2019 Polytrel et al. 2020 Polytrel et al. 2021 Polytrel et al. 2021 Polytr	rly-onset sensis	1			
salem et al. 2018 Phothel et al. 2019 Charlan et al. 2021 Charlan et	oea et al. 2017	· · · · · · · · · · · · · · · · · · ·		259(111463)	1 47
Pachred et al. 2016 Harmed et al. 2019 Harmed et al. 2020 Harmed et al. 2021 Harmed et al. 2021 Harme	liem et al. 2018			13.3 (5.1, 26.8)	1.72
Used et al. 2016         21 4 (47, 50.8)         11           Hammed et al. 2016         37 (08, 10.3)         15           Sand et al. 2016         144 (42, 33.7)         14           Purba et al. 2019         43 (01.21.9)         15           Source al. 2019         38 (0.1, 12.9)         15 (00.6, 0.1)           Source al. 2019         38 (0.1, 12.9)         15 (00.6, 0.2)           Source al. 2019         55 (01.6, 13.8)         15           Source al. 2021         55 (01.6, 13.8)         15           Source al. 2021         0.0 (00.2, 23.2)         1.1 (10.0, 24.2)         1.2 (00.7, 23.2)           Sand st al. 2021         0.0 (00.2, 23.2)         1.1 (11.1)         1.1 (11.1)           Sand st al. 2021         0.0 (00.2, 25.5)         1.1 (10.0, 24.5)         1.1 (10.0, 24.5)           Sand st al. 2021         0.0 (00.2, 25.5)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)           Sand st al. 2021         0.0 (00.2, 25.5)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)           Sand st al. 2021         0.0 (00.2, 25.5)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)           Sand st al. 2021         0.0 (00.0, 10.6)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)         1.1 (11.1)	khrel et al 2018			140 (53 279)	1 70
Sandyopatywe et al. 2018       37.70 (2014)         Harned et al. 2018       91.11 (2014)         Sand et al. 2019       94.3 (2014)         D'hunha et al. 2019       95.6 (2014)         Sand et al. 2019       95.6 (2014)         Sand et al. 2019       15.5 (2014)         Sand et al. 2019       15.6 (2014)         Sand et al. 2019       56.1 (116, 18.4)         Sand et al. 2020       17.0 (20, 4.2)         Sand et al. 2021       1.1 (10.0, 6.2)         Sand et al. 2021       1.1 (10.0, 6.2) <td>sef et al 2018</td> <td></td> <td></td> <td>21 4 (4 7 50 8)</td> <td>1.11</td>	sef et al 2018			21 4 (4 7 50 8)	1.11
Harmed et al. 2018       144 (42, 33.7)       14         Purba et al. 2019       43 (0.1, 21.9)       15         Purba et al. 2019       89 (30, 10.6)       14         Thapa et al. 2019       38 (30, 10.6)       14         Sauce et al. 2019       56 (14, 13.8)       15         Gauce et al. 2019       56 (14, 13.8)       15         Sovindargu et al. 2020       11 (10.0, 6.2)       15         Sovindargu et al. 2021       12 (3.8, 22.2)       12 (3.8, 22.2)         Sands et al. 2021       12 (3.8, 22.1)       12 (3.8, 22.1)         Sovindargu et al. 2021       12 (3.1, 72.2)       12 (3.1, 72.2)         Sands et al. 2021       13 (11.7, 40.5)       11 (3.2, 8.1)         Sands et al. 2021       13 (11.7, 40.5)       13 (11.7, 40.5)         Sands et al. 2021       13 (11.7, 40.5)       13 (11.7, 40.5)         Sands et al. 2021       13 (11.7, 40.5)       14 (3.2, 22.1)         Sands et al. 2021       14 (10.0, 12.1)       12 (10.1, 11.1)         Sands et al. 2021       13 (11.7, 40.5)       14 (11.1)         Sands et al. 2021       13 (11.7, 40.5)       14 (11.2, 11.8)         Sands et al. 2021       14 (10.2, 11.8)       14 (11.1)         Sands et al. 2021       14 (11.2, 11.8)       14 (11	ndvopadhvav et al. 2018		1	37(08 103)	1.95
Same et al. 2019       91 (18, 243)       11         Dhunhan et al. 2019       33 (21, 22, 25, 43, 11       13         Dhunhan et al. 2019       38 (22, 22, 25, 43, 11       14         Sau et al. 2019       38 (22, 22, 25, 43, 11       14         Sau et al. 2019       15 (00, 8, 0)       14         Sau et al. 2019       00 (00, 22, 11, 11       11       00, 60, 22, 11       11         Jana et al. 2021       00 (00, 22, 11, 11       11, 10, 0, 80, 11       13       15         Janade et al. 2021       10 (00, 00, 25, 10, 00)       10, 00, 00, 25, 10       10       11, 10, 11, 11       15         Janade et al. 2021       11, 11, 13, 11, 14, 11, 13, 11, 14, 12, 11       15       13       14       14, 220, 11, 11, 13, 11, 14, 15, 11       15       13       14       14, 220, 11, 14, 13, 21       14       14, 220, 11, 14, 13, 21       14       14, 220, 11, 14, 14, 14, 14, 14, 14, 14, 14, 14	meed et al. 2018			148(42 337)	1.47
Juna et al. 2019         43 (01, 21 a)         11           Daulan et al. 2019         32 (22, 25 d, 4)         14           Jace et al. 2019         15 (00, 60)         14           Jace et al. 2019         56 (16, 13 a)         15           Jace et al. 2019         56 (16, 13 a)         15           Jace et al. 2019         17 (05, 42)         14           Jace et al. 2020         17 (05, 42)         21           Jands et al. 2021         12 (36, 28)         14           Jace et al. 2021         12 (36, 28)         15           Jace et al. 2021         13 (11, 72)         13           Jace et al. 2021         13 (11, 72)         13           Jace et al. 2021         13 (11, 72)         13           Jace et al. 2021         14 (13, 28, 1)         16           Jace et al. 2021         14 (13, 28, 1)         16           Jace et al. 2021         14 (13, 17, 2)         13           Jace et al. 2021         16 (0, 1, 13, 1)         16           Jace et al. 2021         16 (0, 1, 13, 1)         16           Jace et al. 2021         16 (0, 1, 14, 10)         12           Jace et al. 2021         16 (1, 1, 16, 1)         16           Jace et al. 2021         16 (1,	ha et al. 2018			91(19 243)	1.58
Dauhan tal 2019         382 (222, 56.4)         11           Sauc tal 2019         15 (00, 8.0)         14           Sauc tal 2019         15 (00, 8.0)         14           Sauc tal 2019         06 (10, 22)         11           Sauc tal 2019         00 (00, 22)         11           Sauc tal 2010         00 (00, 22)         11           Saud tal 2021         00 (00, 22)         11           Saud tal 2021         00 (00, 28, 50)         00 (00, 28, 50)           Saud tal 2021         00 (00, 28, 50)         00 (00, 28, 50)           Saud tal 2021         13 (17, 40, 50)         11           Stordia tal 2021         13 (17, 40, 50)         12           Stordia tal 2021         13 (17, 40, 50)         14           Stordia tal 2021         13 (17, 40, 50)         12           Stordia tal 2021         13 (17, 40, 50)         12           Stordia tal 2021         13 (10, 14, 40)         12           Stordia tal 2021 <td< td=""><td>rba et al. 2019</td><td></td><td></td><td>43(0.1, 21.9)</td><td>1.39</td></td<>	rba et al. 2019			43(0.1, 21.9)	1.39
Thapa et al. 2019       352 (22.2.64.4)       14         Sace et al. 2019       15 (00.6.2)       15         Sace et al. 2019       56 (16.1.58)       15         Sace et al. 2019       56 (16.1.58)       15         Sace et al. 2019       17 (05.4.2)       22         Sands et al. 2020       17 (05.4.2)       22         Sands et al. 2021       129 (36.2.98)       14         D'amowski et al. 2021       129 (36.2.98)       15         Sadem et al. 2021       13       117 (10.7.4.75)         Sadem et al. 2021       13       11.3.3 (11.7.20)         Sadem et al. 2021       13       16.1.0.3.1       14         Sadem et al. 2021       16.1.1.1.1.1.1.1.1.1.1.3.1       14         Sadem et al. 2021       16.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	auhan et al. 2019			8.9 (3.0, 19.6)	1.81
Bloc et al 2019       15 (00.80)       15 (00.80)       15 (00.80)         Alexphei et al 2019       56 (16, 138)       15 (00.82)       11 (00.62)         Sovindaraju et al 2020       61 (39, 91)       22 (38, 280)       15 (00.80)       11 (20, 28.5)         Sands et al 2021       00 (00.28.5)       11 (13.12.66.1)       11 (13.12.66.1)       11 (13.12.66.1)       11 (13.12.66.1)       11 (13.12.66.1)       11 (13.26.1)       11 (13.26.1)       11 (13.26.1)       11 (13.26.1)       11 (13.26.1)       11 (13.26.1)       11 (13.26.1)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)       12 (24.2.66.2)	apa et al. 2019			38.2 (22.2, 56.4)	1.59
Bao et al. 2019       56 (1, 6, 13, 6)       11 (0, 0, 62)       15         Sovindargu et al. 2020       17 (0, 5, 42)       12       22         Band et al. 2021       12, 97, 05, 42)       12       23, 03, 03, 02, 09, 01       15         Dramowski et al. 2021       00 (0, 0, 28, 5)       00 (0, 0, 28, 5)       00       00 (0, 0, 28, 5)       00         Dramowski et al. 2021       00 (0, 0, 28, 5)       00 (0, 0, 28, 5)       00       00 (0, 0, 28, 5)       00         Staden et al. 2021       00 (0, 0, 28, 5)       00 (0, 0, 28, 5)       00       00 (0, 0, 28, 5)       00         Stade et al. 2021       00 (0, 0, 28, 5)       00 (0, 0, 0, 28, 5)       00       00 (0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	o et al. 2019	•		1.5 (0.0, 8.0)	1.88
Alegopie tal 2019       56 (f, 6, 158)       15         Sovindrargiu et al. 2020       00 (00, 28.2)       11         Bindtatal et al. 2021       12.9 (3.8, 29.8)       15         Sands et al. 2021       12.9 (3.8, 29.8)       15         D'arnowski et al. 2021       12.9 (3.8, 29.8)       15         Sands et al. 2021       21.0 (0.1, 11.1)       13         Sadan et al. 2021       13.3 (1.7, 40.5)       12.1 (0.1, 11.1)         Sadan et al. 2021       38.0 (0.1, 18.3)       14.2         Colviariste et al. 2021       38.0 (0.1, 18.3)       14.2         Jordowiariste et al. 2021       00 (0.0, 30.8)       05.0 (0.3, 30.8)         Juma et al. 2021       00 (0.0, 10.6)       15.2         Juma et al. 2021       00 (0.0, 10.6)       15.2         Juma et al. 2021       00 (0.0, 10.6)       14.2         Juma et al. 2021       00 (0.0, 10.6)       15.2         Juma et al. 2021       28.0 (1.2, 49.4)       14.2         Jue et al. 2021       28.0 (1.2, 49.4)       14.2         Jue et al. 2021       28.0 (1.2, 49.4)       14.2         Jue et al. 2021       28.0 (1.4, 40.0)       2.1 (4.3, 3.1 0)         Jue et al. 2018       68.0 (1.7, 57.4)       15.6 (7.4, 0.9.9)	o et al. 2019	• · · · ·		1.1 (0.0, 6.2)	1.96
Jowindargu et al. 2020       17 (00, 5, 42)       12         Jands et al. 2021       12, 97, 53, 22, 94       12, 97, 53, 22, 94         Jands et al. 2021       12, 97, 53, 22, 94       12, 97, 53, 22, 94         Jands et al. 2021       12, 97, 53, 22, 94       12, 97, 53, 22, 94         Jands et al. 2021       12, 97, 53, 22, 94       11, 11, 11, 12, 11         Jands et al. 2021       62, (1, 3, 17, 21)       11         Janda et al. 2021       13, 31, 17, 40, 55       11, 11, 11, 12, 21, 11         Janda et al. 2021       36, (0, 1, 18, 3)       14         Janda et al. 2021       36, (0, 1, 18, 3)       14         Varonce et al. 2021       00, (0, 0, 30, 8)       06         Junco et al. 2021       00, (0, 0, 30, 8)       06         Janda et al. 2021       00, (0, 0, 10, 6)       15         Janda et al. 2021       00, (0, 0, 10, 6)       15         Junce et al. 2021       00, (0, 0, 10, 6)       15         Janda et al. 2021       00, (0, 0, 10, 6)       15         Janda et al. 2021       00, (0, 0, 10, 6)       15         Junce et al. 2017       28, (1, 3, 53)       22         Janda et al. 2021       00, (0, 0, 12, 12, 14, 44, 44, 10, 0)       14         Jandy dopadhyay et al. 2016       67, (1,	laphi et al. 2019			5.6 (1.6, 13.8)	1.90
liang et al 2020 Bandts et al 2021 Shattar et al 2018 Shattar et al 2021 Shattar e	windaraju et al. 2020		-	0.0 (0.0, 23.2)	1.11
and set al 2021       61 (30.9 m)       22         bittarial del 2021       00 (00.28.5)       00         bittarial del 2021       00 (00.28.5)       00         bittarial del 2021       02 (13.172)       12         stada del 1.2021       03.0 (1.11.1)       13.3 (17.7.40.5)       11.1         stada del 1.2021       11.4 (3.1.28.1)       12.5 (4.2.28.3)       16.5 (0.1.18.3)         stada del 1.2021       12.5 (4.2.28.3)       16.5 (0.0.1.18.3)       12.5 (4.2.28.3)         bittorio et al. 2021       0.6 (0.2.1.2)       22.5 (1.7.40.5)       12.5 (4.2.28.3)         bittorio et al. 2021       0.6 (0.0.1.8.3)       14.2 (1.1.1.1)       12.5 (4.2.28.3)       12.5 (4.2.28.3)         bittorio et al. 2021       0.6 (0.0.1.0.6)       15.5 (1.5.1.1.2)       28.6 (1.2.1.2)       28.6 (1.2.1.2)       28.6 (1.2.1.2)       28.6 (1.2.1.40.4)       14.1 (1.4.1.40.1)       14.2 (1.4.2.2.1)       14.6 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       15.6 (1.2.1.40.4)       15.6 (1.2.1.40.4)       15.6 (1.2.1.40.4)       15.6 (1.2.1.40.4)       15.6 (1.2.1.40.4)       15.6 (1.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       15.6 (1.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.2.1.40.4)       14.2 (1.2.	ng et al. 2020	• ·		1.7 (0.5, 4.2)	2.17
bhattari et al. 2021 D'annovasire del al. 2021 D'annovasire del al. 2021 D'annovasire del al. 2021 D'atana et al. 2018 D'atana et al. 2019 D'atana et al. 2021 D'atana et al. 2019 D'atana et al. 2019 D'atana et al. 2019 D'atana et al. 2021 D'atana et	nds et al. 2021			6.1 (3.9, 9.1)	2.22
Dramowski et al. 2021         0.0 (00, 28, 5)         0.0 (00, 20, 5)         1.1 (1, 1, 1, 2, 1, 1)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 1, 2, 1, 2)         1.1 (1, 1, 2, 2, 1, 1)         1.1 (1, 1, 2, 2, 1)         1.1 (1, 1, 2, 2, 1)         1.1 (1, 1, 2, 2, 1)         1.1 (1, 1, 2, 2, 1)         1.1 (1, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)         1.1 (1, 2, 2, 2, 1)	attarai et al. 2021			12.9 (3.6, 29.8)	1.55
whilingany et al. 2021       2.1 (0.7, 11.3)       1.1         Johnson et al. 2021       6.2 (1.3, 17.2)       1.3         Jalah et al. 2021       3.3 (1.7, 40.5)       1.1         Jalah et al. 2021       3.6 (0.7, 18.3)       1.6         Jokradi et al. 2021       3.6 (0.7, 18.3)       1.6         Jokradi et al. 2021       0.6 (0.0, 2.2)       2.2         Jokradi et al. 2021       0.6 (0.0, 0.30.8)       0.6         Juran et al. 2021       0.0 (0.0, 0.30.8)       0.6         Juran et al. 2021       0.0 (0.0, 0.10.6)       1.5         Juray et al. 2021       2.8 (1.3, 5.3)       2.2         Juray et al. 2021       2.8 (1.6, 5.7.9)       1.6         Juray et al. 2018       6.1 (3.4, 10.0)       2.1         Juray et al. 2018       6.1 (3.4, 10.0)       2.1         Juray et al. 2018       6.1 (3.4, 10.0)       2.1         Juray et al. 2018       4.5 (0.9, 12.7)       1.6         Juray et al. 2018       4.5 (0.9, 12.7) <td< td=""><td>amowski et al. 2021</td><td></td><td></td><td>0.0 (0.0, 28.5)</td><td>0.98</td></td<>	amowski et al. 2021			0.0 (0.0, 28.5)	0.98
bohnson et al. 2021       62 (13, 172)       11         staaden et al. 2021       13, 3(17, 40, 5)       11, 1(31, 26, 1)         stord et al. 2021       36 (0, 1, 18, 3)       14         stord et al. 2021       36 (0, 1, 18, 3)       14         zord et al. 2021       36 (0, 1, 18, 3)       14         zord et al. 2021       06 (0, 2, 12)       22         value et al. 2021       06 (0, 2, 12)       22         stard et al. 2021       06 (0, 2, 12)       22         value et al. 2021       06 (0, 2, 12)       22         stard et al. 2021       00 (0, 0, 0, 0)       15         stard et al. 2021       28 (13, 5, 3)       22         stard et al. 2021       28 (13, 5, 3)       22         stard et al. 2021       28 (13, 5, 3)       22         stard et al. 2017       61 (3, 4, 10, 0)       21         stard et al. 2018       40, 5 (24, 8, 57.9)       16         stard et al. 2018       40, 5 (24, 8, 57.9)       16         stard et al. 2018       41, (1, 4, 47.7)       12         stard et al. 2019       48 (2, 19, 2)       20         stard et al. 2019       13 (0, 5, 2)       22         stard at al. 2021       48 (0, 1, 23, 0)       15      <	linganya et al. 2021	•		2.1 (0.1, 11.1)	1.75
Staaden et al. 2021       133 (17, 40, 5)       11         Salah et al. 2021       11, 13, 1, 26, 1)       16         Solvordal et al. 2021       26 (0.1, 13.3)       16         Colomatek et al. 2021       00 (0.0, 30.8)       00         Jorno et al. 2021       00 (0.0, 30.8)       05         Jorno et al. 2021       00 (0.0, 0.0, 0.6)       15         Juna et al. 2021       00 (0.0, 10.6)       16         Jule et al. 2021       28.0 (12, 1.49, 41.4)       14         Jule et al. 2021       28.0 (12, 1.49, 41.4)       14         Jule et al. 2021       28.0 (12, 1.49, 41.4)       14         Jule et al. 2021       28.0 (12, 1.49, 41.4)       14         Jule et al. 2021       28.0 (12, 1.49, 41.4)       14         Jule et al. 2018       6.1 (3.4, 10.0)       21         Jule et al. 2018       6.1 (3.4, 10.0)       21         Jule et al. 2018       40.5 (24.8, 57.9)       16         Sondrivpedhyavet et al. 2018       45 (0.9, 12.7)       16         Shand et al. 2019       40.5 (24.8, 57.9)       12         Shand et al. 2019       13.0 (6.8, 40.7)       14         Sondridarguet et al. 2019       13.0 (6.8, 40.7)       14         Sondridarguet et al. 2019 <td< td=""><td>nnson et al. 2021</td><td></td><td></td><td>6.2 (1.3, 17.2)</td><td>1.75</td></td<>	nnson et al. 2021			6.2 (1.3, 17.2)	1.75
Sale He al. 2021       11.1 (2.1, 28.1)       16.1 (2.4, 26.8)         Stordal et al. 2021       38.6 (0.1, 18.3)       1.4         Tarrarano et al. 2021       0.6 (0.2, 12)       2.2         Victorno et al. 2021       0.6 (0.2, 12)       2.2         Untorno et al. 2021       0.6 (0.0, 30.8)       0.6         June et al. 2021       0.7 (0.1, 19.0)       1.4         Jus et al. 2021       2.8 (13, 5.3)       2.2         Stadam et al. 2017       9.8 (5.3, 16.3)       2.6         Vise et al. 2017       9.8 (5.3, 16.3)       2.6         Stadam et al. 2018       6.8 (1.9, 16.5)       1.8         Stand et al. 2018       6.8 (1.9, 16.5)       1.8         Stand et al. 2019       3.0 (5.2.8)       2.2       1.4         Stands et al. 2019       3.0 (5.2.8)       2.2       1.4         Stands et al. 2021       1.1 (1.4, 3.4, 7.0)       1.2       1.4         Stands et al. 2021       1.3 (0.5, 2.8)       2.2       1.5	aden et al. 2021			13.3 (1.7, 40.5)	1.15
Stordal et al. 2021       35 (0.1, 18.3)       12         2amarano et al. 2021       12,5 (4,2, 26,8)       16         Octowiartek et al. 2021       0.0 (0.0, 30,8)       0.6         Utomo et al. 2021       0.0 (0.0, 30,8)       0.6         Utomo et al. 2021       0.0 (0.0, 10,8)       14         Das et al. 2021       0.0 (0.0, 10,8)       14         Stordal et al. 2021       2.8 (13,5,3)       2.2         Stordal et al. 2021       2.8 (13,5,3)       2.0         Stordal et al. 2013       4.5 (7,40,9,9)       50         Ate-onset sepsis       3.8 (5,0,16,3)       2.0         Paiwinder et al. 2018       4.8 (5,0,9,12.7)       1.6         Stordat et al. 2018       4.5 (0,9,12.7)       1.6         Shruth et al. 2018       4.5 (0,9,12.7)       1.4         Shruth et al. 2018       4.8 (2,1,92)       2.0         Shruth et al. 2019       4.8 (2,1,92)       2.0         Sandrigondurgue et al. 2021       1.1 (11,4,347)       1.1         Sandrigondurgue et al. 2021       1.8 (0,0,8,40)	lah et al. 2021			11.1 (3.1, 26.1)	1.62
Image and a lance       12,5 (4,2,26,8)       11         Polowiatek et al. 2021       0,0 (0,0,3,8)       0,0 (0,2,12)       22         Unome et al. 2021       3,7 (0,1,19,0)       1,4         Das et al. 2021       3,7 (0,1,19,0)       1,4         Statama et al. 2021       2,8 (1,3,5,3)       2,2         Statama et al. 2017       9,8 (5,3, 16,3)       2,2         Statama et al. 2017       9,8 (5,3, 16,3)       2,2         Statama et al. 2017       9,8 (5,3, 16,3)       2,2         Statama et al. 2018       11,1 (1,4,94,7)       1,2         Statama et al. 2018       11,1 (1,4,94,7)       1,2         Statama et al. 2019       4,5 (0,9,12,7)       1,8         Statama et al. 2019       1,8 (0,0,8,40)       1,4         Statama et al. 2019       1,8 (0,0,8,40)       1,1         Statama et al. 2021       1,9 (3,3,7,0)       2,2         Statama et al. 2021       1,9 (3,3,7,0)       2,2         Statama et al. 2021       1,9	ordal et al. 2021	•		3.6 (0.1, 18.3)	1.49
Polcwlarek et al. 2021       06 (0.2, 12)       22         Itomo et al. 2021       0,0 (0.0, 0.3, 0.6)       0.5         Utumat et al. 2021       0,0 (0.0, 0.3, 0.6)       0.5         Upag et al. 2021       28,0 (12,1,49,4)       1.4         Upag et al. 2021       28,0 (12,1,49,4)       1.4         Upag et al. 2021       28,0 (12,1,49,4)       1.4         Statema et al. 2021       28,0 (12,1,49,4)       1.4         Statema et al. 2021       21,4 (8,3,41,0)       1.4         Statema et al. 2017       6.7 (40,9,9)       50         Ause et al. 2018       6.8 (19,16,5)       1.6         Standrogadhysy et al. 2018       6.8 (19,16,5)       1.6         Onchreid et al. 2018       6.8 (19,16,5)       1.6         Shutht et al. 2018       1.6,7 (47, 37, 4)       1.6         Shutht et al. 2019       20,0 (6.8, 40,7)       1.4         Sao et al. 2019       1.6 (0,0,8,4)       1.6         Sand et al. 2021       1.6 (6,0,8,4)       1.6         State al. 2021       1.7 (15, 18,1)       1.7         State al. 2021       1.7 (1,0,2,2,4)       1.7 (1,0,2,2,4)       1.7 (1,0,2,2,4)         State al. 2021       1.6 (0,0,8,4)       1.6       2.0 (1,1,1,1,1)       1.7 (1,0,7,2,4) <td>marano et al. 2021</td> <td></td> <td></td> <td>12.5 (4.2, 26.8)</td> <td>1.67</td>	marano et al. 2021			12.5 (4.2, 26.8)	1.67
Jitomo et al. 2021 Kumari et al. 2021 Salama et al. 2021 Jalama et al. 2021 Jue et al. 2017 Auser et al. 2017 Auser et al. 2017 Auser et al. 2018 Sandróp achinya y et al. 2018 Sokhrel et al. 2018 Sandróp achinya y et al. 2018 Sokhrel et al. 2018 Sandróp achinya y et al. 2018 Sokhrel et al. 2018 Sandróp achinya y et al. 2019 Thapa et al. 2021 Jue et al. 2019 Thapa et al. 2021 Jue et al. 2019 Thapa et al. 2021 Jue et al. 2019 Thatarai et al. 2021 Jue et al. 20	lcwiartek et al. 2021	•		0.6 (0.2, 1.2)	2.28
Jumari et al. 2021       37 (0.1, 19.0)       1.4         Das et al. 2021       0.0 (0.0, 10.6)       1.5         July et al. 2021       2.8 (1.3, 5.3)       2.2         Julat al. 2021       2.8 (1.3, 5.3)       2.2         Stabara et al. 2021       2.8 (1.3, 5.3)       2.2         Stabara et al. 2021       2.8 (1.3, 5.3)       2.2         Stabara et al. 2021       6.1 (3.4, 10.0)       2.1         Stabara et al. 2017       9.8 (5.3, 16.3)       2.0         Lese et al. 2017       9.8 (5.3, 16.3)       2.0         Viser et al. 2018       6.8 (1.9, 16.5)       1.8         Sana et al. 2018       6.8 (1.9, 16.5)       1.8         Sana et al. 2018       11.1 (1.4, 34.7)       1.2         Junat et al. 2019       13 (0.5, 2.8)       2.2         Sand et al. 2019       13 (0.5, 2.8)       2.2         Sands et al. 2021       11.6 (0.0, 8.4)       15.7 (4.0, 3.7)       1.4         Sand et al. 2021       11.6 (0.0, 8.4)       1.5       2.2         Sand et al. 2019       13 (0.5, 2.8)       2.2       2.2         Sand et al. 2021       11.8 (1.5, 3.6.4)       1.2       2.2         Sand et al. 2021       11.4 (1.0, 7.6)       1.5       1.5	omo et al. 2021			0.0 (0.0, 30.8)	0.93
Das et al. 2021       0.0 (0.0, 10.6)       15.         Pillay et al. 2021       28.0 (12.1, 49.4)       1.4         Lue et al. 2021       28.0 (12.1, 49.4)       1.4         Subtotal (1/2 = 83.9%, p = 0.0)       28.0 (12.1, 49.4)       1.4         Subtotal (1/2 = 83.9%, p = 0.0)       6.1 (3.4, 10.0)       2.1         ale-onset sepsis       6.1 (3.4, 10.0)       2.1         alwinder et al. 2017       9.8 (5.3, 16.3)       2.6         user et al. 2018       9.8 (5.3, 16.3)       2.6         Bandycpadhyay et al. 2018       6.8 (1.9, 16.5)       1.8         Subotat et al. 2018       10.7 (2.1, 48.4)       10.6         Sub et al. 2019       4.8 (2.1, 9.2)       2.1         Thap et al. 2019       4.8 (2.1, 9.2)       2.1         Suo et al. 2019       13.0 (5.2, 8)       2.2         Chauma et al. 2021       11.1 (1.4, 34.7)       1.4         Sovindaraju et al. 2020       7.0 (1.5, 19.1)       1.7         Sovindaraju et al. 2021       11.1 (1.3, 2.4.1)       1.4         Sovindaraju et al. 2021       11.1 (1.4, 34.7)       12.2         Sovindaraju et al. 2021       11.1 (1.4, 34.7)       12.2         Sovindaraju et al. 2021       11.1 (1.3, 2.4.1)       1.4         So	mari et al. 2021	• •		3.7 (0.1, 19.0)	1.47
Pilay et al. 2021       28.0 (12.1, 49.4)       1.4         Liu et al. 2021       28.0 (12.1, 49.4)       1.4         Statum et al. 2021       21.4 (8.3, 41.0)       1.4         Subtotal (1 <sup>v2</sup> = 83.9%, p = 0.0)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 83.9%, p = 0.0)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 83.9%, p = 0.0)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 83.9%, p = 0.0)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 83.9%, p = 0.0)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 87.9%)       8.1       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 87.9%)       1.6       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 87.9%)       1.6       6.1 (3.4, 10.0)       2.1         Subtotal (1 <sup>v2</sup> = 87.9%)       1.6       6.1 (3.4, 10.0)       1.1         Subtotal (1 <sup>v2</sup> = 87.9%)       1.6       1.1       1.1       1.1         Subtotal (1 <sup>v2</sup> = 87.9%)       1.6       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1	s et al. 2021			0.0 (0.0, 10.6)	1.58
Ju et al. 2021       2.8 (1.3, 5.3)       2.2         Salama et al. 2021       21.4 (8.3, 41.0)       1.4         Salama et al. 2017       6.1 (3.4, 10.0)       2.1         Lebea et al. 2017       9.8 (5.3, 16.3)       2.2         Vaeref et al. 2018       6.8 (1.9, 16.5)       1.8         Sandyopadhyay et al. 2018       6.8 (1.9, 16.5)       1.8         Sohnet et al. 2018       6.8 (1.9, 16.5)       1.8         Sohnet et al. 2018       1.11 (1.4, 34.7)       1.2         Jana et al. 2018       1.11 (1.4, 34.7)       1.2         Jana et al. 2019       4.8 (2.1, 9.2)       2.1         Thapa et al. 2019       1.3 (0.5, 2.8)       2.2         Juet et al. 2019       1.3 (0.5, 2.8)       2.2         Salama et al. 2021       1.11 (1.3, 7.4.1)       1.7         Juet al. 2021       4.8 (2.1, 0.8)       2.2         Salama et al. 2021       1.8 (1.5, 36.4)       1.2         Juet al. 2021       4.8 (2.1, 0.8)       2.2         Salama et al. 2021       1.8 (1.5, 36.4)       1.2         Juet al. 2021       4.8 (2.1, 2.3, 0)       2.2         Salama et al. 2021       4.8 (2.1, 2.3, 0)       2.2         Juet al. 2021       3.3 (0, 1.17.2)       1.5 </td <td>ay et al. 2021</td> <td></td> <td>•</td> <td>28.0 (12.1, 49.4)</td> <td>1.43</td>	ay et al. 2021		•	28.0 (12.1, 49.4)	1.43
Salama et al. 2021 $21.4 (8.3, 41.0)$ $1.4$ Subtotal ( $l^2 = 83.9\%$ , p = 0.0) $6.7 (4.0, 9.9)$ $50$ ate-onset sepsis $6.1 (3.4, 10.0)$ $2.1$ aumider et al. 2017 $9.8 (5.3, 16.3)$ $2.0$ used et al. 2018 $40.5 (24.8, 57.9)$ $1.6$ andyopadhyay et al. 2018 $6.8 (1.9, 11.6)$ $1.6.7 (2.1, 48.4)$ $10.67 (4.7, 37.4)$ Youre et al. 2018 $4.5 (0.9, 12.7)$ $1.8$ $1.6.7 (4.7, 37.4)$ $1.4$ Suo et al. 2019 $4.8 (2.1, 9.2)$ $2.1$ $1.3 (0.5, 2.8)$ $2.2$ Purba et al. 2019 $1.3 (0.5, 2.8)$ $2.2$ $1.3 (0.5, 2.8)$ $2.2$ Soundarigu et al. 2020 $7.0 (1.5, 19.1)$ $1.7$ $7.6 (5.1, 10.8)$ $2.2$ Soundarigu et al. 2021 $7.0 (1.5, 19.1)$ $1.7$ $7.6 (5.1, 10.8)$ $2.2$ Soundarigu et al. 2021 $7.0 (1.5, 19.1)$ $1.7$ $7.6 (5.1, 10.8)$ $2.2$ Soundarigu et al. 2021 $7.0 (1.5, 19.1)$ $7.7 (5.5, 1.0.8)$ $2.2$ Soundarigu et al. 2021 $7.0 (1.5, 19.1)$ $7.7 (5.5, 1.0.8)$ $2.2$ Soundarigu et al. 2021 $7.0 $	et al. 2021			2.8 (1.3, 5.3)	2.21
Subtotal (I/2 = 83.9%, p = 0.0)       6.7 (4.0, 9.9)       50         .ate-onset sepsis       6.1 (3.4, 10.0)       2.1         Palwinder et al. 2017       9.8 (5.3, 16.3)       2.0         .use et al. 2018       40.5 (24.8, 57.9)       1.6         Sandyopadhyay et al. 2018       6.8 (1.9, 16.5)       1.6         Solute et al. 2018       16.7 (2.1, 48.4)       1.0         Sand et al. 2018       16.7 (4.7, 37.4)       1.4         Saude et al. 2019       4.8 (2.1, 9.2)       2.1         Thape et al. 2019       1.3 (0.5, 2.8)       2.2         Subutat et al. 2019       1.6 (0.0, 8.4)       1.8         Sond set al. 2021       1.6 (0.0, 8.4)       1.8         Sands et al. 2021       1.6 (0.0, 8.4)       1.8         Satama et al. 2021       1.8 (1.5, 3.6.4)       1.2         Satama et al. 2021       1.8 (1.5, 2.6.8)       1.2         Satama et al. 2021       1.8 (1.5, 2.6.8)       1.2         Satama et al. 2021       1.8 (1.6, 2.7.0)       2.0         Satama et al. 2021       1.8 (1.6, 2.2.7.0)       2.0         Satama et al. 2021       1.8 (1.5, 2.5.8)       1.2         Satama et al. 2021       1.8 (1.0, 2.7.0)       2.0         Satama et al. 2021       1.8	lama et al. 2021			21.4 (8.3, 41.0)	1.49
Late-onset sepsis Paiwinder et al. 2017 .ebea et al. 2017 .ebea et al. 2017 .ebea et al. 2018 Bandyopadhyay et al. 2018 Pokhrel et al. 2018 Bandyopadhyay et al. 2018 Pokhrel et al. 2018 Band et al. 2018 Bane et al. 2018 Bane et al. 2018 Baue et al. 2018 Baue et al. 2019 Chauban et al. 2019 Chauban et al. 2019 Drawba et al. 2021 Bantarai et al. 2021 Batharai et al. 2021 Batharai et al. 2021 Dramowski et al. 2021	btotal (1^2 = 83.9%, p = 0.0)	$\diamond$		6.7 (4.0, 9.9)	50.39
Jtomo et al. 2021     3.3 (0.1, 17.2)     1.5       stordal et al. 2021     0.0 (0.0, 2.9)     2.0       staden et al. 2021     4.8 (1.3, 11.9)     1.5       studtottal (I <sup>A</sup> 2 = 87.0%, p = 0.0)     8.0 (5.2, 11.3)     49	ndyopadhyay et al. 2018 khrel et al. 2018 meed et al. 2018 o et al. 2018 o et al. 2018 o et al. 2019 apa et al. 2019 o et al. 2019 auhan et al. 2019 windaraju et al. 2020 nds et al. 2021 attrai et al. 2021 lama et al. 2021 lama et al. 2021 lama et al. 2021 lama et al. 2021 marano et al. 2021 amowski et al. 2021 mará et al. 2021 awowski et al. 2021 av et al. 2021			$\begin{array}{c} 6.8 \left( 1.9, 16.5 \right) \\ 16.7 \left( 2.1, 48.4 \right) \\ 4.5 \left( 0.9, 12.7 \right) \\ 11.1 \left( 1.4, 34.7 \right) \\ 16.7 \left( 4.7, 37.4 \right) \\ 4.8 \left( 2.1, 9.2 \right) \\ 20.0 \left( 6.8, 40.7 \right) \\ 1.3 \left( 0.5, 2.8 \right) \\ 17.6 \left( 9.7, 28.2 \right) \\ 1.6 \left( 0.0, 8.4 \right) \\ 7.0 \left( 1.5, 19.1 \right) \\ 7.6 \left( 5.1, 10.8 \right) \\ 11.1 \left( 3.7, 24.1 \right) \\ 4.9 \left( 3.3, 7.0 \right) \\ 11.8 \left( 1.5, 36.4 \right) \\ 9.7 \left( 2.0, 25.8 \right) \\ 19.4 \left( 13.2, 27.0 \right) \\ 1.4 \left( 0.0, 7.6 \right) \\ 4.8 \left( 0.1, 23.8 \right) \\ 5.5 \left( 2.0, 11.6 \right) \\ 7.1 \left( 0.2, 33.9 \right) \\ 27.9 \left( 21.2, 35.4 \right) \end{array}$	1.83 1.03 1.87 1.25 1.41 2.12 1.43 2.24 1.91 1.86 1.70 2.22 1.72 2.26 1.22 1.72 2.26 1.22 1.55 2.08 1.90 1.34 2.03 1.11 2.12
	ymo et al. 2021 ymo et al. 2021 yrdal et al. 2021 yaden et al. 2021 btotal ( $I^2$ = 87.0%, p = 0.0)	•		2. 3 (21.2, 33.4) 3.3 (0.1, 17.2) 0.0 (0.0, 2.9) 4.8 (1.3, 11.9) 8.0 (5.2, 11.3)	2.12 1.53 2.06 1.95 49.61
-teterogeneity between groups: p = 0.656           Overall (I^2 = 86.5%, p = 0.0);           7.3 (5.3, 9.6)           10	terogeneity between groups; $p = 0$ erall (I <sup>A</sup> 2 = 86.5%, $p = 0.0$ );			7.3 (5.3, 9.6)	100.00

S04. Meta-analysis of Acinetobacter spp. prevalence in Early- versus Late-onset neonatal sepsis

### Meta-analysis of the prevalence of *Citrobacter* spp. in early- versus late-onset neonatal sepsis (%)



S05. Meta-analysis of Citrobacter spp. prevalence in Early versus Late-onset neonatal sepsis

#### Meta-analysis of the prevalence of *Listeria* spp. in early- versus late-onset neonatal sepsis (%)



S06. Meta-analysis of Listeria spp. prevalence in Early versus Late-onset neonatal sepsis

## Meta-analysis of the prevalence of *Klebsiella* spp. in early- versus late-onset neonatal sepsis (%)

		3
Early-onset sepsis	11/10 11 0	1.07
	4.4 (1.2, 11.0)	1.37
ehea et al. 2017	40.7 (22.4 61.2)	1.00
Sandyopadhyay et al. 2018	46.3 (35.3, 57.7)	1.36
rusef et al. 2018	14.3 (1.8, 42.8)	1.10
Saha et al. 2018	18.2 (7.0, 35.5)	1.27
Pokhrel et al. 2018	44.2 (29.1, 60.1)	1.30
Bozkurt et al. 2018	50.0 (15.7, 84.3)	0.94
Tameed et al. 2018	44.4 (25.5, 64.7)	1.24
Chauban et al. 2019	28.9 (16.4, 44.3)	1.31
Guo et al. 2019	9.0 (3.4, 18.5)	1.35
Gao et al. 2019	3.4 (0.7, 9.7)	1.36
Shattarai et al. 2019	62.5 (24.5, 91.5)	0.94
/elaphi et al. 2019	1.4 (0.0, 7.6)	1.35
Purba et al. 2019	30.4 (13.2, 52.9)	1.21
Thapa et al. 2019	2.9 (0.1, 15.3)	1.27
luang et al. 2020	10.8 (7.2, 15.5)	1.41
Sovindaraju et al. 2020	50.0 (23.0, 77.0)	1.10
Pandit et al. 2020	14.6 (10.7, 19.3)	1.41
Stoll et al. 2020	3.2 (1.3, 6.6)	1.40
u et al. 2020	8.8 (5.7, 12.8)	1.41
Kumari et al. 2021	33.3 (16.5, 54.0)	1.24
Shattarai et al. 2021	32.3 (16.7, 51.4)	1.26
Salama et al. 2021	60.7 (40.6, 78.5)	1.24
/ohannes et al. 2021	20.8 (10.5, 35.0)	1.31
amarano et al. 2021	37.0 (20.0, 49.9) 15.0 (5.7, 29.8)	1.29
iu et al. 2021	9.7 (6.7. 13.5)	1.41
Das et al. 2021	33.3 (18.0, 51.8)	1.27
Polcwiartek et al. 2021	0.7 (0.3, 1.4)	1.43
Jiomo et al. 2021	<b>70.0 (34.8, 93.3)</b>	1.01
Aulinganya et al. 2021	18.8 (8.9, 32.6)	1.31
Stordal et al. 2021	0.0 (0.0, 12.3)	1.24
Pramowski et al. 2021	0.0 (0.0, 28.5)	1.04
Pillav el al. 2021	24.0 (9.4, 45.1)	1.22
Galah et al. 2021	33.3 (18.6, 51.0)	1.28
Sands et al. 2021	53.9 (48.6, 59.1)	1.42
Staaden et al. 2021	46.7 (21.3, 73.4)	1.12
Flannery et al. 2022	3.2 (1.3, 6.5)	1.41
subtotal (P2 = 96,0%, p = 0.0)	20.9 (14.4, 28.1)	53.11
.ebea et al. 2017	52.3 (43.4, 61.0)	1.39
Geyesus et al. 2017	24.0 (9.4, 45.1)	1.22
Palwinder et al. 2017	33.5 (27.4, 40.0)	1.41
Shrubi et al 2018	50.0 (29.1.70.9)	1.04
Bozkurt et al. 2018	60.7 (40.6, 78.5)	1.24
Pokhrel et al. 2018	33.3 (9.9, 65.1)	1.06
rusel et al. 2018	35.1 (20.2, 52.5)	1.28
lameed et al. 2018	11.1 (1.4, 34.7)	1.16
Sandyopadhyay et al. 2018	32.2 (20.6, 45.6)	1.33
Shattarai et al. 2019	35.7 (18.6, 55.9)	1.24
Salo et al. 2019	28.0 (24.5, 32.9)	1.42
Chauhan et al. 2019	257(162.372)	1.35
Purba et al. 2019	17.2 (8.9, 28.7)	1.34
Guo et al. 2019	37.1 (29.8, 44.9)	1.40
Govindaraju et al. 2020	37.2 (23.0, 53.3)	1.30
Tumuhamyeid et al. 2020	8.7 (1.1, 28.0)	1.21
Pan et al. 2020	26.9 (20.1, 34.6)	1.39
Pandir et al. 2020	10.1 (4.2, 19.8)	1.35
iu et al. 2021	64.7 (38.3, 85.8)	1.15
Salah et al. 2021	47 6 (25 7 70 2)	1.19
Dramowski et al. 2021	21.1 (13.9, 30.0)	1.38
Sands et al. 2021	40.5 (35.5, 45.7)	1.42
Stordal et al. 2021	7.1 (3.3, 13.1)	1.39
Staaden et al. 2021	51.8 (40.6, 62.9)	1.36
Das et al. 2021	40.8 (29.3, 53.2)	1.35
Jomo et al. 2021	70.0 (50.6, 85.3)	1.25
runannes et al. 2021	48.3 (35.2, 61.6)	1.34
Zamarano el al. 2021		1.26
Bhattarai et al. 2021	17.8 (8.0, 32.1)	1.31
Tessema et al. 2021	10.0 (3.3, 21.8)	1.32
Pillay et al. 2021	44.2 (36.5, 52.2)	1.40
lohnson et al. 2021 Subtotal (I <sup>A</sup> 2 = 86.5%, p = 0.0)	30.9 (23.4, 39.3) 31.3 (26.8, 36.0)	1.39 46.89
teterogenelly between groups: p = 0.018 ↓ ↓verall (l <sup>2</sup> ≥ 95.7%, p = 0.0);	25.7 (20.8, 30.9)	100.00
	······································	
· · ·		

S07. Meta-analysis of Klebsiella spp. prevalence in Early- versus Late-onset neonatal sepsis

Study	ES (95% CI) Wei	ight
Early-onset sepsis		4
Hammoud et al. 2017		1
		4 6
Bozkurt et al. 2018		8
Yusef et al. 2018		8
Pokhrel et al. 2018	20 9 (10 0, 36 0) 1 7	5
Saha et al. 2018	0.0 (0.0. 10.6) 1.64	4
Thapa et al. 2019	8.8 (1.9, 23.7) 1.6	5
Velaphi et al. 2019	1.4 (0.0, 7.6) 1.94	4
Chauhan et al. 2019	<b>50.0 (36.3, 63.7)</b> 1.86	6
Gao et al. 2019	1.1 (0.0, 6.2) 2.00	0
Bhattarai et al. 2019	0.0 (0.0, 36.9) 0.8	8
Stoll of al. 2020	7.1 (0.2, 33.9) 1.18	8
Pandit et al. 2020		0 1
liang et al. 2020	42 (20, 7, 5) 21	à
Utomo et al. 2021	20.0 (2.5, 55.6) 0.99	9
Kumari et al. 2021	7.4 (0.9, 24.3) 1.54	4
Liu et al. 2021	6.0 (3.6, 9.1) 2.2	2
Dramowski et al. 2021	0.0 (0.0, 28.5) 1.0	5
Johnson et al. 2021	0.0 (0.0, 7.4) 1.80	0
Stordal et al. 2021	0.0 (0.0, 12.3) 1.5	6
Poicwiartek et al. 2021	0.4 (0.1, 1.0) 2.29	9
Staduen et al. 2021		2
Mulinganya et al. 2021		3 0
Bhattarai et al. 2021	65 (08 214) 16	1
Zamarano et al. 2021	7.5 (1.6, 20.4) 1.7	2
Das et al. 2021	3.0 (0.1, 15.8) 1.64	4
Tessema et al. 2021	0.0 (0.0, 28.5) 1.0	5
Salah et al. 2021	0.0 (0.0, 9.7) 1.68	8
Flannery et al. 2022	0.5 (0.0, 2.5) 2.18	8
Subtotal $(1^2 = 89.1\%, p = 0.0)$	3.4 (1.2, 6.4) 52.1	19
Late-onset sepsis		~
Lebea et al. 2017	0.8 (0.0, 4.1) 2.1(	0
Bozkurt et al. 2018	4.5 (0.9, 12.7) 1.9/	6
		8 8
Shruthi et al. 2018	4.2 (0.1, 21.1) 1.4	8
Pokhrel et al. 2018	33.3 (9.9, 65.1) 1.0	9
Yusef et al. 2018	2.7 (0.1, 14.2) 1.69	9
Thapa et al. 2019	8.0 (1.0, 26.0) 1.50	0
Bhattarai et al. 2019	7.1 (0.9, 23.5) 1.56	6
Chauhan et al. 2019	47.3 (35.6, 59.3) 1.9	5
Gao et al. 2019	3.7 (2.1, 5.8) 2.2	5
Pan et al. 2020	1.9 (0.4, 5.5) 2.13	3
Panolit et al. 2020	2.9 (0.4, 10.1) 1.9	კ 5
	4./(U.O, 10.8) 1./( 3.6.(1.2.8.2) 2.1-	ე 1
Salah et al. 2021	<u> 4 8 (0 1 23 8)</u> 1 <u>4</u> (	ò
Liu et al. 2021	8.9 (6.7, 11.6) 2.20	6
Zamarano et al. 2021	12.9 (3.6, 29.8) 1.6	1
Utomo et al. 2021	13.3 (3.8, 30.7) 1.5	9
Das et al. 2021	1.4 (0.0, 7.6) 1.94	4
Sands et al. 2021	10.5 (7.6, 14.1) 2.23	3
Dramowski et al. 2021	8.3 (3.8, 15.1) 2.0	6
lessema et al. 2021	6.0 (1.3, 16.5) 1.82	2
	7 I (3.3, 13.1) 2.0 2.0 (0.1, 11.9) 1.7	9 7
Staaden et al. 2021	2.2 (U.I, II.0) I./. 3.6 (0.8.10.2) 1.0	á
Kumari et al. 2021		8
Subtotal (I^2 = 81.9%, p = 0.0)	6.7 (4.2, 9.6) 47.6	81
Heterogeneity between groups: $p = 0.172$		
Overall (I^2 = 88.1%, p = 0.0);	5.0 (3.2, 7.1) 100	0.00
0 10 00 00	40 50	

# Meta-analysis of the prevalence of Enterobacter spp. in early- versus late-onset neonatal sepsis (%)

S08. Meta-analysis of Enterobacter spp. prevalence in Early versus Late-onset neonatal sepsis

### Meta-analysis of the prevalence of *Serratia* spp. in early- versus late-onset neonatal sepsis (%)



S09. Meta-analysis of Serratia spp. prevalence in Early versus Late-onset neonatal sepsis

Meta-analysis of the prevalence of Enterococcus spp. in early- versus late-onset neonatal
sepsis (%)

Study	ES (95% Cl)	Weight
Farly-onset sensis		
Hammoud et al. 2017	2.2 (0.3, 7.8)	2.34
Lebea et al. 2017	7.4 (0.9, 24.3)	1.37
Seliem et al. 2018	11.1 (3.7, 24.1)	1.79
Saha et al. 2018	0.0 (0.0, 10.6)	1.54
Yusef et al 2018		0.90
Bozlant et al 2018	0.0 (0.0, 25.2)	0.59
Bandwanadhaav at al. 2019	14.6 (7.8.24.2)	0.33
Guo et al 2019	14.9 (7.4, 25.7)	2.12
Veleobi et el 2010	14.3 (7.4, 23.7)	2.12
Geo et al. 2019	2.4 (0.7, 0.7)	2.10
Burke stal 2010	10.0 (0.9, 20.6)	2.52
	8.7.(1.1.09.0)	1.25
Caria familia di al 2020	8.7 (1.1, 28.0)	1.25
Govindaraju et al. 2020	0.0 (0.0, 23.2)	0.90
Stoll et al. 2020	6.0 (3.2, 10.1)	2.85
Jiang et al. 2020	6.2 (3.5, 10.1)	2.90
Liu et al. 2021	3.4 (1.7, 6.1)	3.01
Zamarano et al. 2021	2.5 (0.1, 13.2)	1.70
Mulinganya et al. 2021	2.1 (0.1, 11.1)	1.85
Staaden et al. 2021	13.3 (1.7, 40.5)	0.94
Tessema et al. 2021	0.0 (0.0, 28.5)	0.75
Pillay et al. 2021	◆ 24.0 (9.4, 45.1)	1.31
Bhattarai et al. 2021	12.9 (3.6, 29.8)	1.48
Dramowski et al. 2021	0.0 (0.0, 28.5)	0.75
Salah et al. 2021	0.0 (0.0, 9.7)	1.61
Johnson et al. 2021	6.2 (1.3, 17.2)	1.85
Kumari et al. 2021	3.7 (0.1, 19.0)	1.37
Polcwiartek et al. 2021	6.0 (4.6, 7.6)	3.26
Stordal et al. 2021	3.6 (0.1, 18.3)	1.40
Flannery et al. 2022	6.4 (3.5, 10.5)	2.86
Subtotal (I <sup>A</sup> 2 = 47.3%, p = 0.0)	5.1 (3.6, 6.7)	50.68
late-const consis		
Palwinder et al. 2017	35(1567)	2.88
Labora et al. 2017	45(17,96)	2.60
Replant et al. 2017	4.5 (1.7, 9.6)	2.59
Booking in all 2010	3.6 (0.1, 16.3)	1.40
Bandyopadnyay et al. 2018	0.8 (1.9, 16.5)	2.02
Yuser et al. 2018	2.7 (0.1, 14.2)	1.63
Sana er al. 2018	1.5 (0.0, 8.2)	2.11
Purba et al. 2019	7.8 (2.6, 17.3)	2.08
Guo et al. 2019	12.6 (8.0, 18.6)	2.73
Gao et al. 2019	5.8 (3.9, 8.3)	3.11
Govindaraju et al. 2020	11.6 (3.9, 25.1)	1.76
Turnuhamyeid et al. 2020	0.0 (0.0, 14.8)	1.25
Pan et al. 2020	9.6 (5.5, 15.4)	2.69
Pillay et al. 2021	27.9 (21.2, 35.4)	2.72
Dramowski et al. 2021	10.1 (5.1, 17.3)	2.47
Stordal et al. 2021	16.7 (10.6, 24.3)	2.57
Zamarano et al. 2021	0.0 (0.0, 11.2)	1.48
Bhattarai et al. 2021	<b>2</b> 4.4 (12.9, 39.5)	1.79
Liu et al. 2021	3.1 (1.9, 4.9)	3.16
Johnson et al. 2021	5.8 (2.5, 11.0)	2.63
Salah et al. 2021	4.8 (0.1, 23.8)	1.18
Kumari et al. 2021	0.0 (0.0, 23.2)	0.90
Tessema et al. 2021	10.0 (3.3, 21.8)	1.88
Staaden et al. 2021	8.4 (3.5, 16.6)	2.28
Subtotal (I <sup>A</sup> 2 = 83.0%, p = 0.0)	7.1 (4.6, 9.9)	49.32
Heterogeneity between groups; p = 0.376		
Overall (I <sup>A</sup> 2 = 72.5%, p = 0.0);	6.1 (4.7, 7.7)	100.00
0 5 10 15 20	25 30 35 40	

S10. Meta-analysis of Enterococcus spp. prevalence in Early versus Late-onset neonatal sepsis

Early-onset sepsis		0.0 (0.0, 7.0)	4.45
Hammoud et al. 2017		2.2 (0.3, 7.8)	1.45
ehea et al 2017		11 1 (2 4 29 2)	1.42
Aku et al. 2018		25.0 (0.6, 80.6)	0.72
Yusef et al. 2018	-	7.1 (0.2, 33.9)	1.13
Pokhrel et al. 2018	+	2.3 (0.1, 12.3)	1.37
Bozkurt et al. 2018	•	0.0 (0.0, 36.9)	0.96
Bandyopadhyay et al. 2018		24.4 (15.6, 35.1)	1.44
Hameed et al. 2018		7.4 (0.9, 24.3)	1.29
Saha et al. 2018		2.5 (0.5, 6.7)	1.44
Seliem et al. 2018	·	13.3 (5.1, 26.8)	1.37
Guo et al. 2019	•	3.0 (0.4, 10.4)	1.42
Gao et al. 2019	<u>+</u>	2.3 (0.3, 8.1)	1.44
Thapa et al. 2019		26.5 (12.9, 44.4)	1.33
Purba et al. 2019		4.2 (0.9, 11.9)	1.43
Tumuhamveid et al. 2020	· · · · · · · · · · · · · · · · · · ·	40.5 (20.2, 00.5) 56 5 (34 5 76 8)	1.20
Govindaraju et al. 2020	•	0.0 (0.0, 23.2)	1.13
Stoll et al. 2020	Ĩ <b>€</b> - I	1.4 (0.3, 4.0)	1.49
Pandit et al. 2020		64.8 (58.9, 70.3)	1.50
Jiang et al. 2020	••	1.7 (0.5, 4.2)	1.49
Yohannes et al. 2021		35.1 (24.4, 47.1)	1.43
wumuyanya etal. 2021 Dasetal 2021		4.2 (0.5, 14.3)	1.38
Zamarano et al. 2021		20.0 (9.1, 35.6)	1.36
Dramowski et al. 2021	•	9.1 (0.2, 41.3)	1.06
Pillay et al. 2021		24.0 (9.4, 45.1)	1.27
Salama et al. 2021		7.1 (0.9, 23.5)	1.30
Staaden et al. 2021		20.0 (4.3, 48.1)	1.15
iu et al 2021		6.0 (3.6, 9.1)	1.00
Johnson et al. 2021		16.7 (7.5, 30.2)	1.38
Shattarai et al. 2021	•	12.9 (3.6, 29.8)	1.32
Kumari et al. 2021	•	14.8 (4.2, 33.7)	1.29
Salah et al. 2021		5.6 (0.7, 18.7)	1.34
Jtomo et al. 2021		0.0 (0.0, 30.8)	1.03
Stordal et al. 2021		2.2 (1.4, 3.3)	1.52
Takassi et al. 2022	-	4.3 (0.1, 21.9)	1.26
Flannery et al. 2022	♦-	1.4 (0.3, 4.0)	1.49
Subtotal (I^2 = 95.4%, p = 0.0)		10.6 (5.7, 16.6)	53.74
ate-onset sepsis			
Lebea et al. 2017	• • • • • • • • • • • • • • • • • • •	21.2 (14.6, 29.2)	1.47
Palwinder et al. 2017	I — • —	28.7 (22.9, 35.0)	1.49
Geyesus et al. 2017	1	60.0 (38.7, 78.9)	1.27
Saha et al. 2018 Giannoni et al. 2019		18.2 (9.8, 29.6)	1.42
Bozkurt et al. 2018		- 214 (83, 41, 0)	1.40
Yusef et al. 2018	•	0.0 (0.0, 9.5)	1.35
Hameed et al. 2018		27.8 (9.7, 53.5)	1.20
Pokhrel et al. 2018	•	0.0 (0.0, 26.5)	1.09
Bandyopadhyay et al. 2018	1	42.4 (29.6, 55.9)	1.41
AKU et al. 2018 Thana et al. 2019		37.5 (8.5, 75.5)	0.96
Gan et al. 2019		86(62,115)	1.51
Purba et al. 2019		35.9 (24.3. 48.9)	1.42
Guo et al. 2019		12.6 (8.0, 18.6)	1.48
fumuhamyeid et al. 2020	1	69.6 (47.1, 86.8)	1.26
randit et al. 2020 Pers et al. 2020	I	68.1 (55.8, 78.8)	1.42
°an et al. ∠0∠0 Govindaraiu et al. 2020		10.9 (6.5, 16.9)	1.48
Dramowski et al. 2021	· · · · · · · · · · · · · · · · · · ·	22.0 (14.6. 31.0)	1.46
Jtomo et al. 2021	•	3.3 (0.1, 17.2)	1.31
/ohannes et al. 2021		- 26.7 (16.1, 39.7)	1.41
Staaden et al. 2021		14.5 (7.7, 23.9)	1.44
rillay et al. 2021		0.0 (0.0, 2.2)	1.48
fessema et al. 2021		7.2 (3.5, 12.8) 22 0 (11 5, 36 0)	1.47
Salama et al. 2021		11.8 (1.5, 36.4)	1.19
Stordal et al. 2021		38.1 (29.6, 47.2)	1.47
∟iu et al. 2021	<del></del>	9.1 (6.9, 11.8)	1.51
Salah et al. 2021		4.8 (0.1, 23.8)	1.24
Zamarano et al. 2021		19.4 (7.5, 37.5)	1.32
Snattarai et al. 2021 Cumori et al. 2021		26.7 (14.6, 41.9)	1.37
Das et al. 2021	1	14.3 (1.6, 42.8) 33.8 (23.0, 46.0)	1.13
Subtotal (I^2 = 92.8%, p = 0.0)	$\diamond$	20.0 (14.7, 25.8)	46.26
Heterogeneity between groups: p	0.026		
Overall (1 <sup>2</sup> = 94.8%, p = 0.0);	$\diamond$	14.7 (10.9, 19.0)	100.00
	1		

# Meta-analysis of the prevalence of *Staphylococcus Aureus* in early- versus late-onset neonatal sepsis (%)

S11. Meta-analysis of Staphylococcus aureus prevalence in Early versus Late-onset neonatal sepsis

## Meta-analysis of the prevalence of Salmonella spp. in early- versus late-onset neonatal sepsis (%)



S12. Meta-analysis of Salmonella spp. prevalence in Early versus Late-onset neonatal sepsis

## Meta-analysis of the prevalence of *Pseudomonas* spp. in early- versus late-onset neonatal sepsis (%)

			96
udy		ES (95% CI)	Weight
articaneat eanele	1		
any-onset sepsis		20.00 105	1.40
epea et al. 2017		0.0 (0.0, 12.8)	1.40
andyopadhyay et al. 2018		1.2 (0.0, 6.6)	2.22
Aku et al. 2018		50.0 (6.8, 93.2)	0.37
Saha et al. 2018		3.0 (0.1, 15.8)	1.56
Pokhrel et al. 2018		4.7 (0.6, 15.8)	1.76
Hameed et al. 2018		3.7 (0.1, 19.0)	1.40
Yusef et al. 2018	•	0.0 (0.0, 23.2)	0.94
Chauhan et al. 2019		7.1 (2.0, 17.3)	1.96
Velaphi et al. 2019	<b>•</b>	1.4 (0.0, 7.6)	2.12
Thapa et al. 2019	+	2.9 (0.1, 15.3)	1.58
Purba et al. 2019	+	0.0 (0.0, 14.8)	1.28
Stoll et al. 2020	◆	0.5 (0.0, 2.6)	2.71
Govindaraju et al. 2020	•	7.1 (0.2, 33.9)	0.94
_u et al. 2020	<b>+</b>	3.6 (1.8, 6.6)	2.79
Pandit et al. 2020		5.7 (3.3, 9.1)	2.79
Jiang et al. 2020	-	6.2 (3.5, 10.1)	2.74
Sands et al. 2021	<b>+</b>	4.7 (2.8, 7.5)	2.86
lohnson et al. 2021	<b>*</b>	0.0 (0.0, 7.4)	1.84
Salah et al. 2021		11.1 (3.1, 26.1)	1.62
fesserna et al. 2021	<b>•</b>	0.0 (0.0, 28.5)	0.79
Dramowski et al. 2021		9.1 (0.2, 41.3)	0.79
Mulinganya et al. 2021	· · · · · · · · · · · · · · · · · · ·	2.1 (0.1, 11.1)	1.84
Liu et al. 2021	★	1.6 (0.5, 3.6)	2.83
Zamarano et al. 2021		10.0 (2.8, 23.7)	1.70
Bhattarai et al. 2021		9.7 (2.0, 25.8)	1.51
Das et al. 2021	<b>A</b>	0.0 (0.0, 10.6)	1.56
Salama et al. 2021	· · · ·	107(23, 282)	1 43
Polowiartek et al. 2021		03(01.08)	3.03
Kumari et al. 2021		11 1 (2.4, 29.2)	1.40
Fighter of all 2022		0.5(0.0.2.5)	2.71
Subtotal (1/2 - 76 2% p - 0.0)		24(10.40)	51.50
Late-onset sepsis	1		
Palwinder et al. 2017		12 2 (8 2, 17 1)	2.73
Lebea et al. 2017	<b>←</b>	0.8 (0.0, 4.1)	2.49
Shruthi et al. 2018	· · · · · · · · · · · · · · · · · · ·	25.0 (9.8. 46.7)	1.31
Pokhrel et al. 2018	<b>•</b>	0.0 (0.0, 26.5)	0.84
Yusef et al. 2018		2.7 (0.1, 14.2)	1.64
Bandvopadhvav et al. 2018	<b>.</b>	17(00.91)	1.99
Sabalet al. 2018		3.0.04 10.5	2.07
Homeond et al. 2018		22 2 (64, 47, 6)	1.11
Alguet al. 2019		22.2 (04, 47.0)	0.62
Chauban et al 2010		0.5/20.0 (0.2, 00.1)	2.15
Theorem 1 et al. 2019		9.0 (1.0. 20 0)	∠ 13 1 94
napaoral 2019 Purbo at al 2010		0.0 (1.0, 20.0) 7.040.0 17.0	1.04
runda et al. 2019		7.8 (2.6, 17.3)	2.05
randii et al. 2020		/.2 (2.4, 16.1)	2.10
Bovindaraju et al. 2020		14.0 (5.3, 27.9)	1.76
Shattarai et al. 2021		4.4 (0.5, 15.1)	1.79
Salah et al. 2021		9.5 (1.2, 30.4)	1.22
Tessema et al. 2021		2.0 (0.1, 10.6)	1.87
Johnson et al. 2021		2.2 (0.4, 6.2)	2.52
Das et al. 2021		4.2 (0.9, 11.9)	2.12
Dramowski et al. 2021		4.6 (1.5, 10.4)	2.39
Sands et al. 2021		3.8 (2.1, 6.3)	2.87
iu et al. 2021	•	2.8 (1.6, 4.5)	2.96
Salama et al. 2021	• · · · · · · · · · · · · · · · · · · ·	0.0 (0.0, 19.5)	1.07
'amarano et al. 2021		6.5 (0.8, 21.4)	1.51
Kumari et al. 2021	• · · · · · · · · · · · · · · · · · · ·	0.0 (0.0, 23.2)	0.94
Subtotal (1^2 = 65.5%, p = 0.0)	_ <b>o</b>	4.7 (2.9, 6.8)	45.50
Heterogeneity between groups: p = 0.082			100.00

S13. Meta-analysis of Pseudomonas spp. prevalence in Early- versus Late-onset neonatal sepsis

# Meta-analysis of the prevalence of Proteus spp. in early- versus late-onset neonatal sepsis (%)

Study	ES (95% CI)	% Weight
Early-onset sepsis		
Aku et al. 2018	0.0 (0.0, 60.2)	0.83
Saha et al. 2018	3.0 (0.1, 15.8)	4.46
Velaphi et al. 2019	1.4 (0.0, 7.6)	6.95
Purba et al. 2019	0.0 (0.0, 14.8)	3.47
Stoll et al. 2020	0.5 (0.0, 2.6)	10.36
Pandit et al. 2020	0.4 (0.0, 2.0)	10.98
Zamarano et al. 2021	0.0 (0.0, 8.8)	5.05
Utomo et al. 2021	0.0 (0.0, 30.8)	1.80
Mulinganya et al. 2021	2.1 (0.1, 11.1)	5.63
Staaden et al. 2021	0.0 (0.0, 21.8)	2.50
Flannery et al. 2022	0.5 (0.0, 2.5)	10.40
Subtotal $(I^2 = 0.0\%, p = 0.9)$	0.0 (0.0, 0.1)	62.42
Late-onset sepsis		
Aku et al. 2018	12.5 (0.3, 52.7)	1.50
Saha et al. 2018	0.0 (0.0, 5.4)	6.70
Purba et al. 2019	14.1 (6.6, 25.0)	6.60
Pandit et al. 2020	0.0 (0.0, 5.2)	6.85
Staaden et al. 2021	1.2 (0.0, 6.5)	7.48
Utomo et al. 2021	3.3 (0.1, 17.2)	4.18
Zamarano et al. 2021	3.2 (0.1, 16.7)	4.28
Subtotal (I^2 = 73.1%, p = 0.0)	2.2 (0.0, 7.3)	37.58
Heterogeneity between groups, $p = 0.084$		
Overall (1^2 = 49.7%, p = 0.0);	0.4 (0.0, 1.5)	100.00
Prevalence (%)		

S14. Meta-analysis of Proteus spp. prevalence in Early versus Late-onset neonatal sepsis



## Meta-analysis of the prevalence of *Streptococcus pyogenes* in early- versus late-onset neonatal sepsis (%)

S15. Meta-analysis of Streptococcus pyogenes prevalence in Early versus Late-onset neonatal sepsis



S16. Risk of bias as calculated by the LFK index for GNB. ES=Double arcsine transformed effect size



*S17. Risk of bias as calculated by the LFK index for GNB part 2. ES=Double arcsine transformed effect size* 





S18. Risk of bias as calculated by the LFK index for GPB. ES=Double arcsine transformed effect size



LFK index: EOS species gram bias

LFK index: LOS species gram bias

*S19. Risk of bias as calculated by the LFK index for comparison of GNB and GPB and species prevalence calculations. ES=Double arcsine transformed effect size* 



S20. Risk of bias as calculated by the LFK index for comparison of HIC and LMICs for species prevalence calculations in EOS and LOS. ES=Double arcsine transformed effect size

#### Low and lower-middle income

#### Upper-middle and high-income



*S21.* Meta-analysis of species prevalence in late-onset neonatal sepsis (%) in Low- and lower-middle income compared with upper-middle and high-income countries.