

成人肺炎診療ガイドライン 2024 Online Supplement

成人肺炎診療ガイドライン 2024

編集 日本呼吸器学会成人肺炎診療ガイドライン 2024 作成委員会

Online Supplement

SR2

市中肺炎における原因微生物

図 Suppl-1. Unknown etiology.

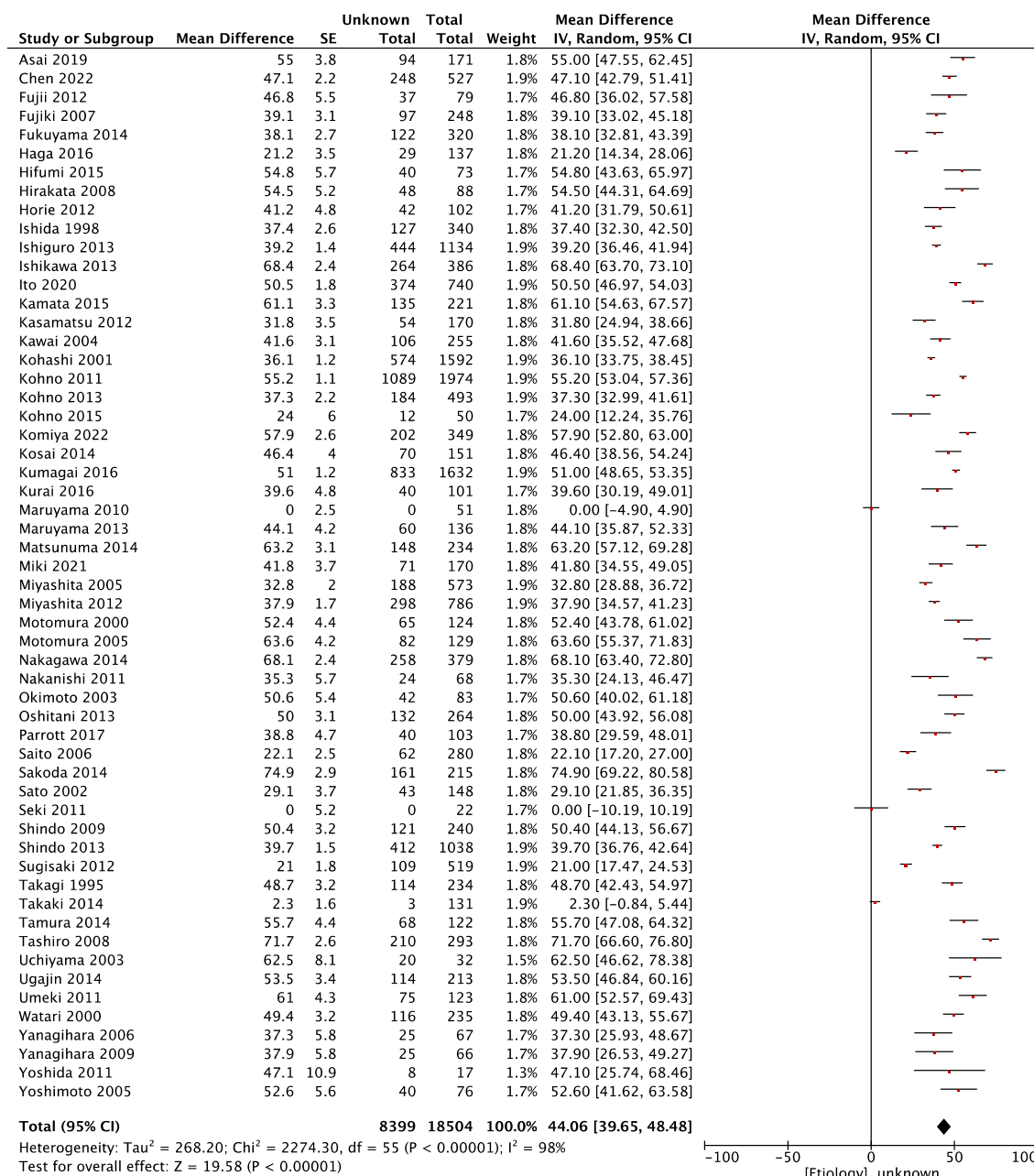


図 Suppl-2-1. Frequency of *S. pneumoniae* isolated in CAP in both inpatients and outpatients.

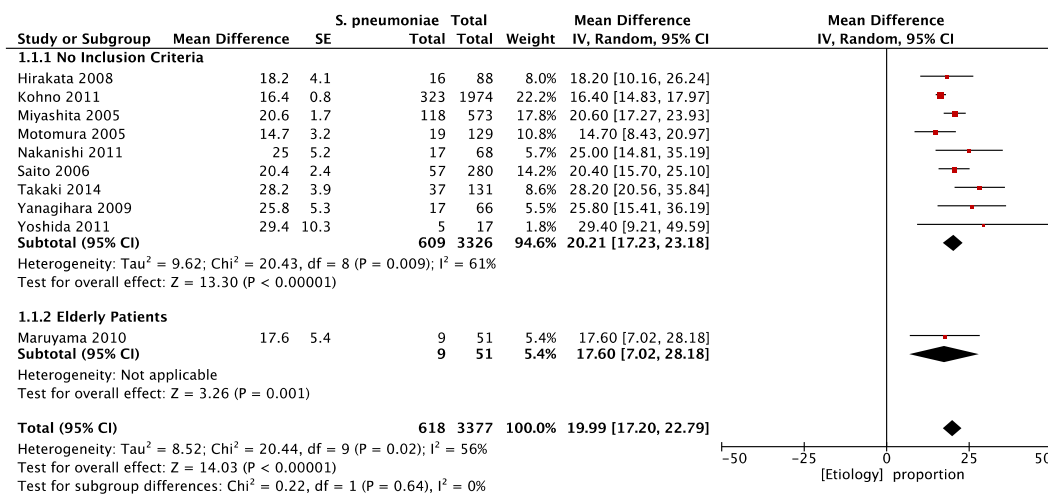


図 Suppl-2-2. Frequency of *H. influenzae* isolated in CAP in both inpatients and outpatients.

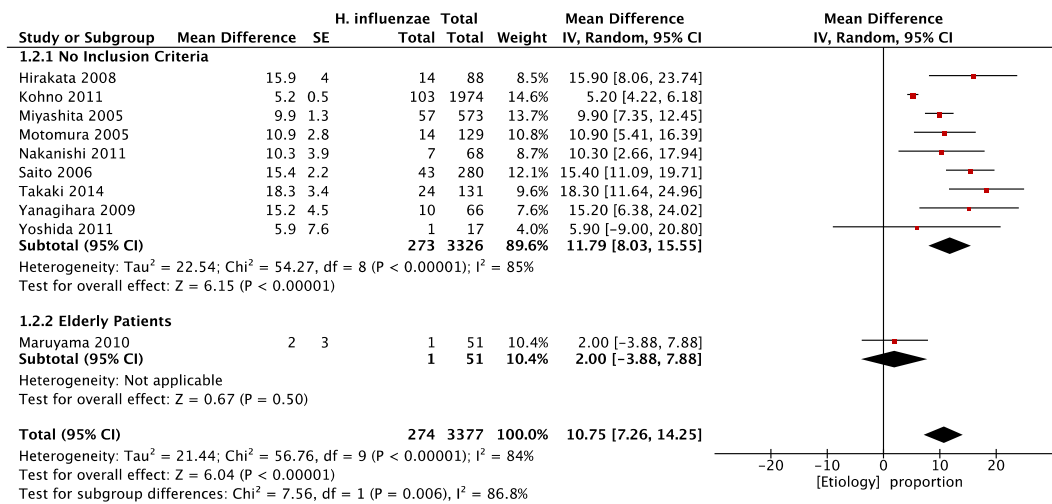


図 Suppl-2-3. Frequency of *M. pneumoniae* isolated in CAP in both inpatients and outpatients.

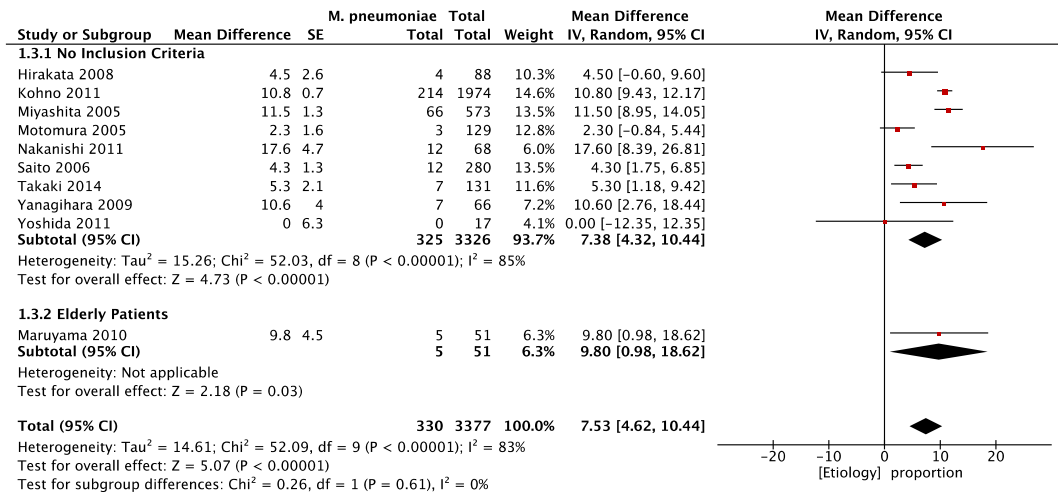


図 Suppl-2-4. Frequency of *C. pneumoniae* isolated in CAP in both inpatients and outpatients.

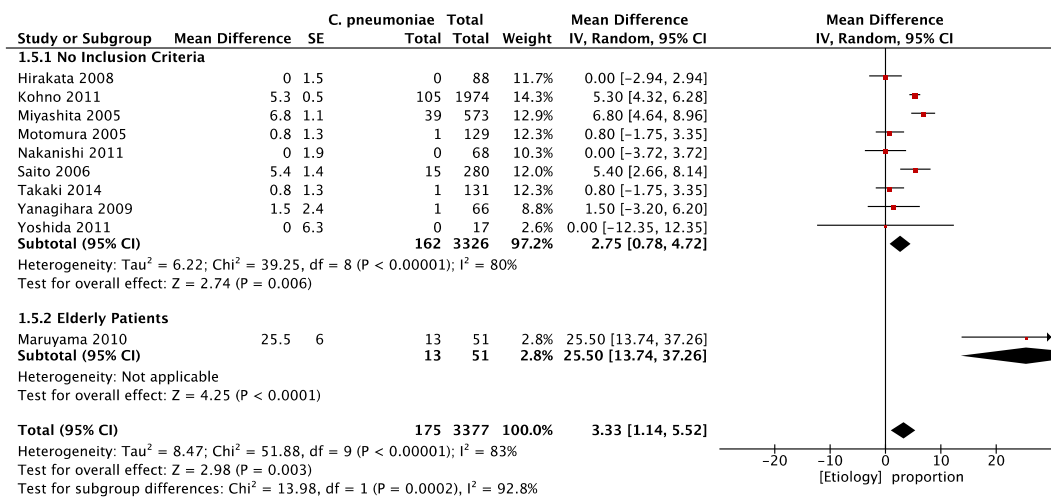


図 Suppl-2-5. Frequency of *M. catarrhalis* isolated in CAP in both inpatients and outpatients.

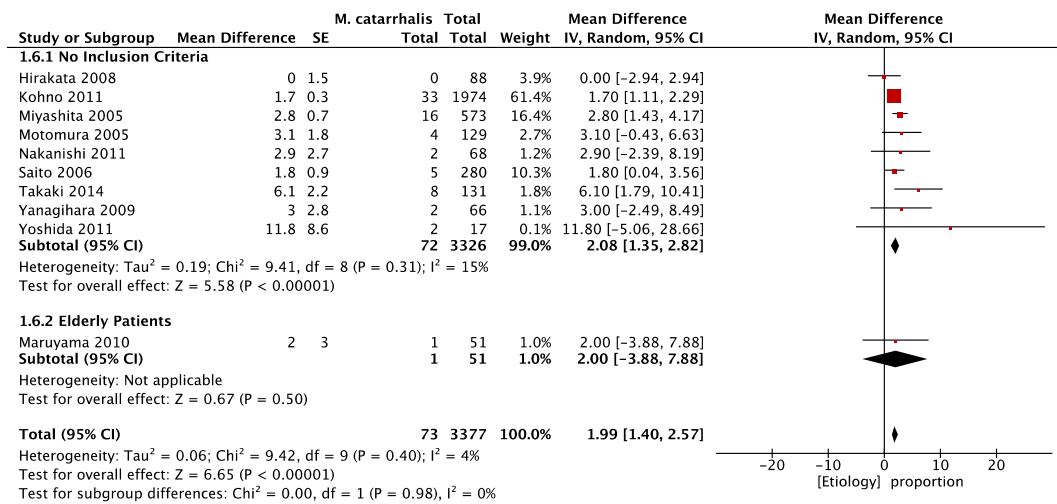


図 Suppl-2-6. Frequency of *S. aureus* isolated in CAP in both inpatients and outpatients.

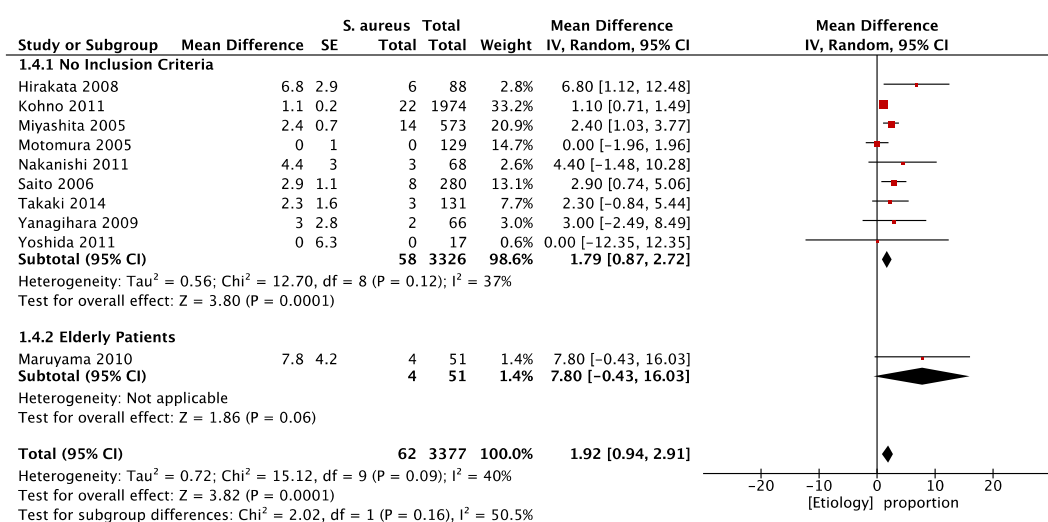




図 Suppl-2-7. Frequency of *K. pneumoniae* isolated in CAP in both inpatients and outpatients.

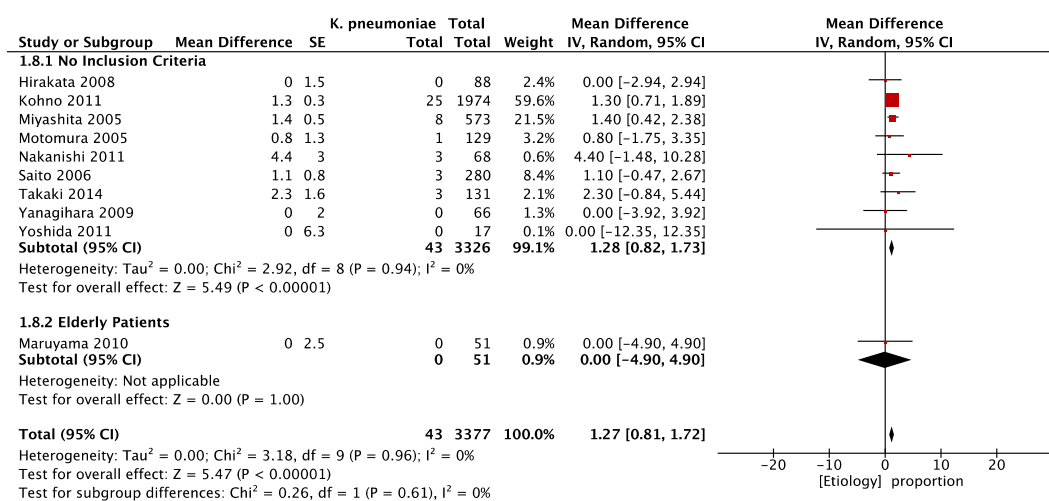


図 Suppl-2-8. Frequency of *P. aeruginosa* isolated in CAP in both inpatients and outpatients.

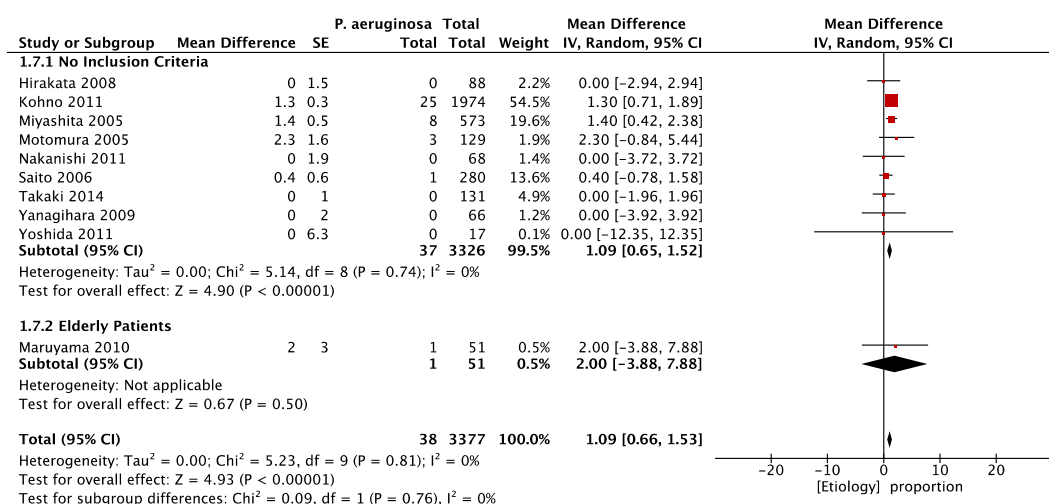
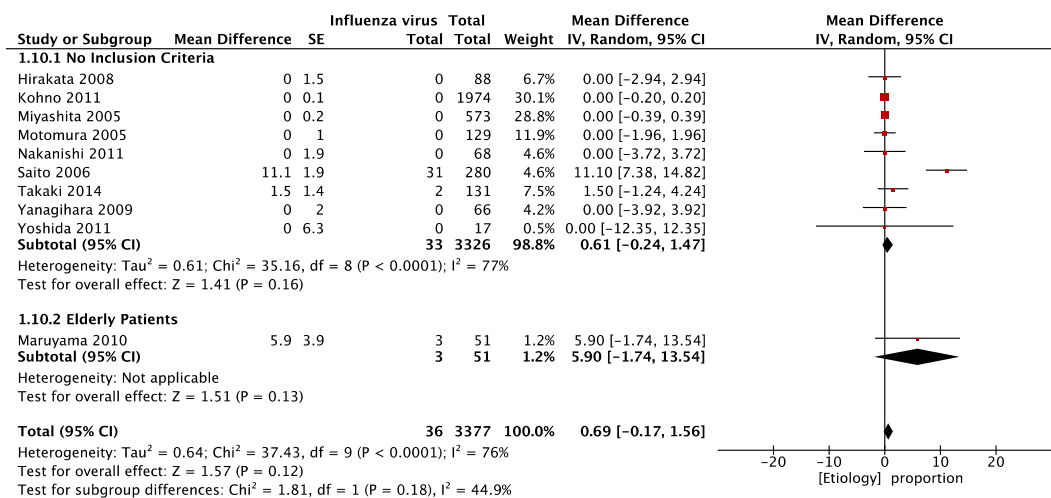


図 Suppl-2-9. Frequency of influenza virus isolated in CAP in both inpatients and outpatients.



☒ Suppl-2-10. Frequency of *L. pneumophila* isolated in CAP in both inpatients and outpatients.

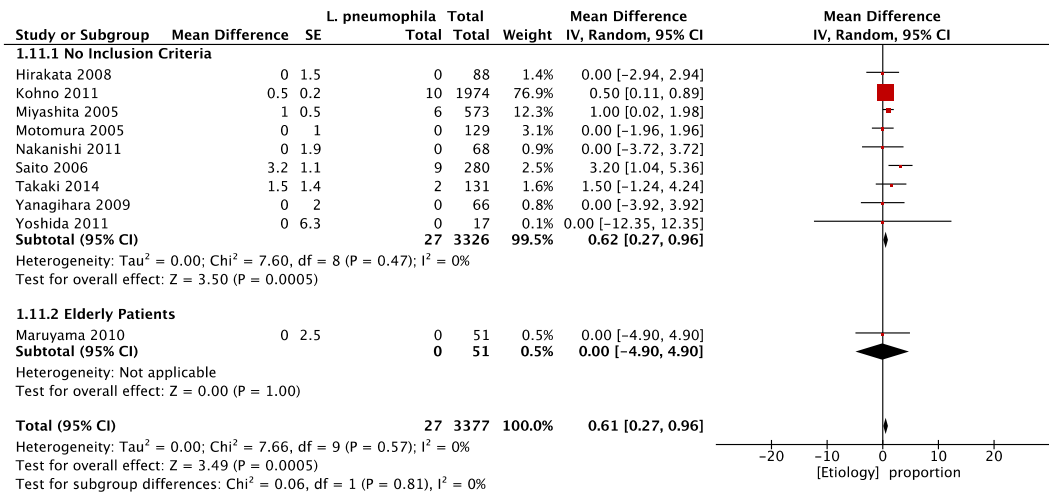


図 Suppl-3-1. Frequency of *S. pneumoniae* isolated in CAP requiring hospitalization.

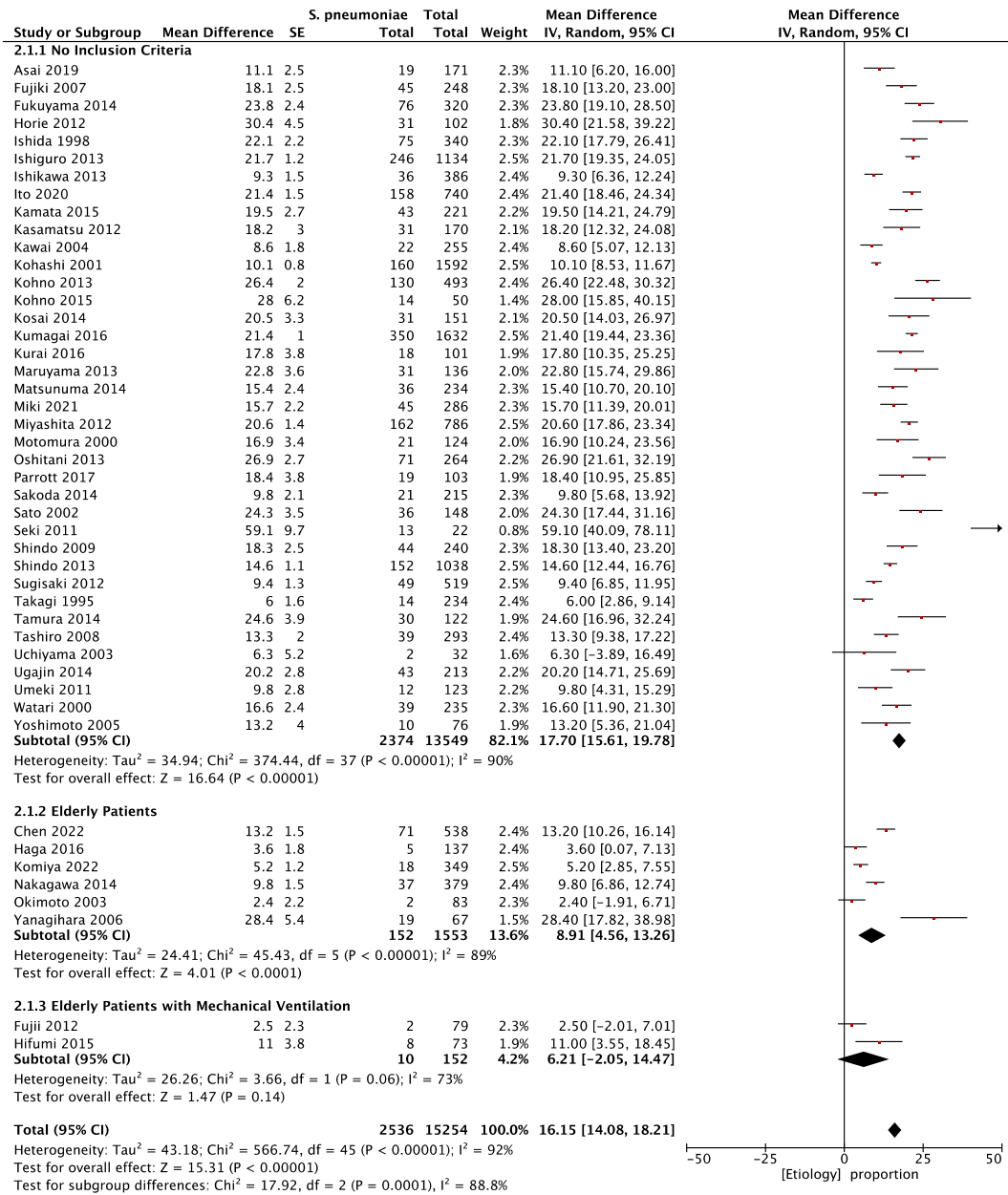


図 Suppl-3-2. Frequency of *H. influenzae* isolated in CAP requiring hospitalization.

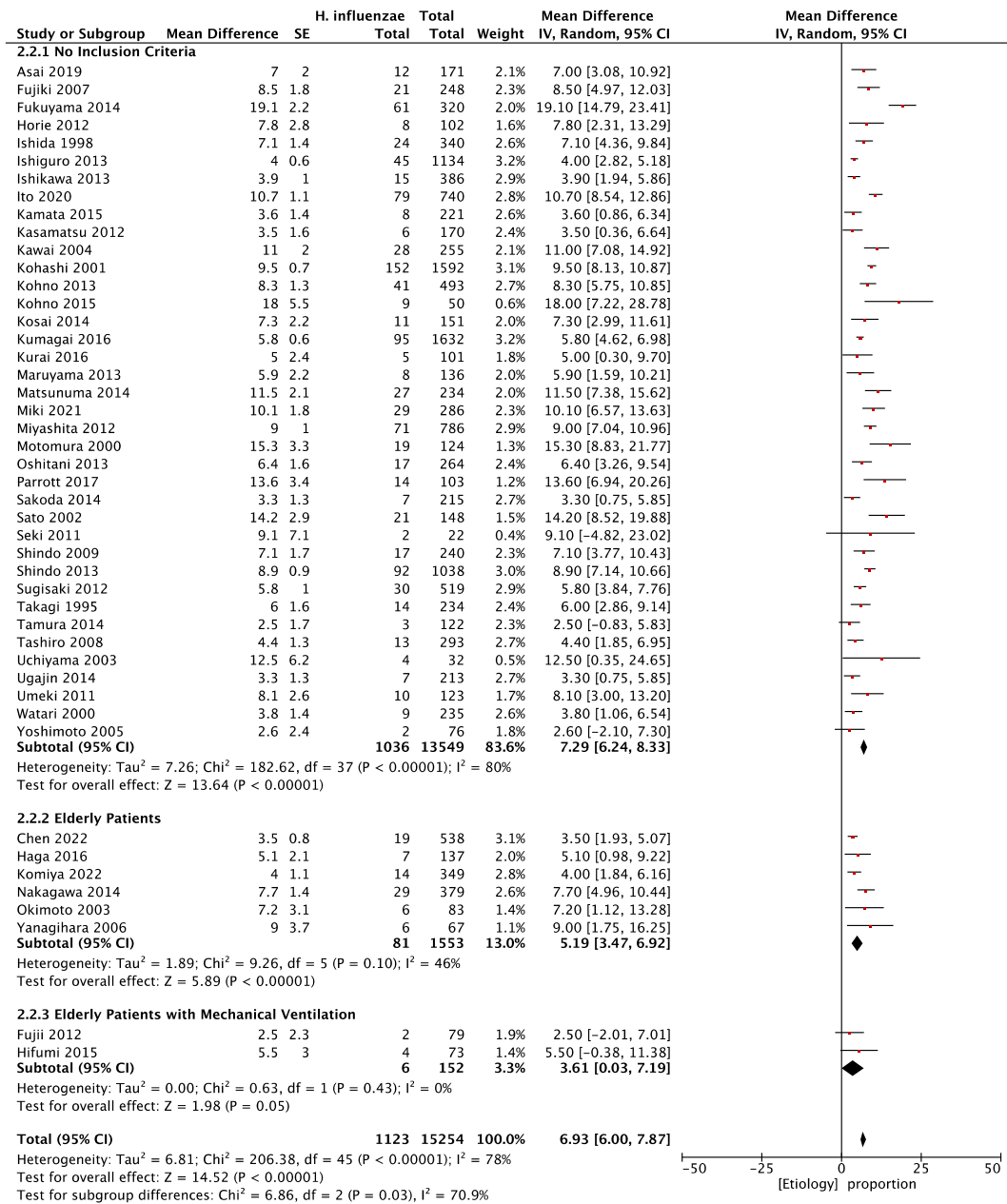


図 Suppl-3-3. Frequency of *S. aureus* isolated in CAP requiring hospitalization.

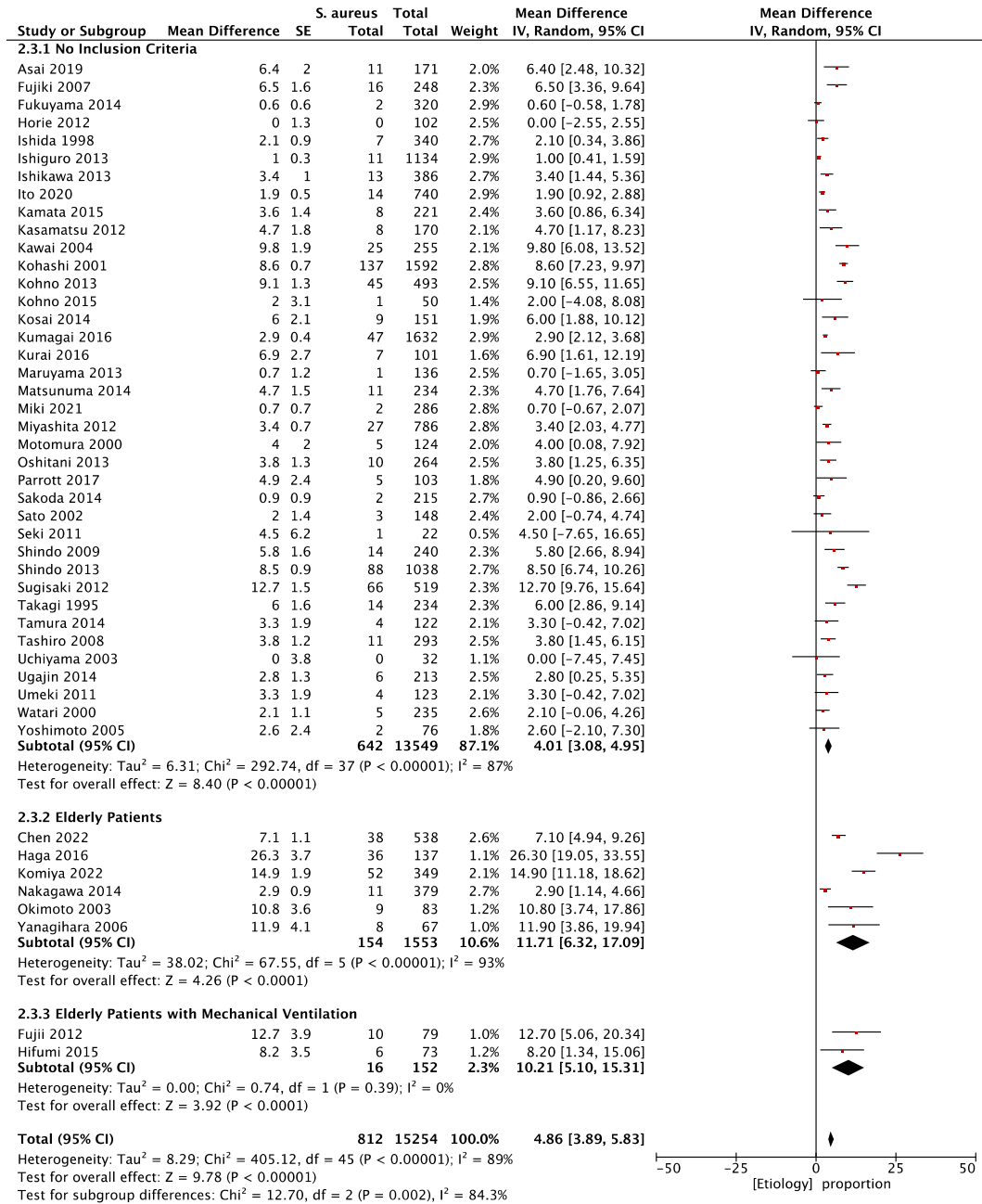


図 Suppl-3-4. Frequency of *M. pneumoniae* isolated in CAP requiring hospitalization.

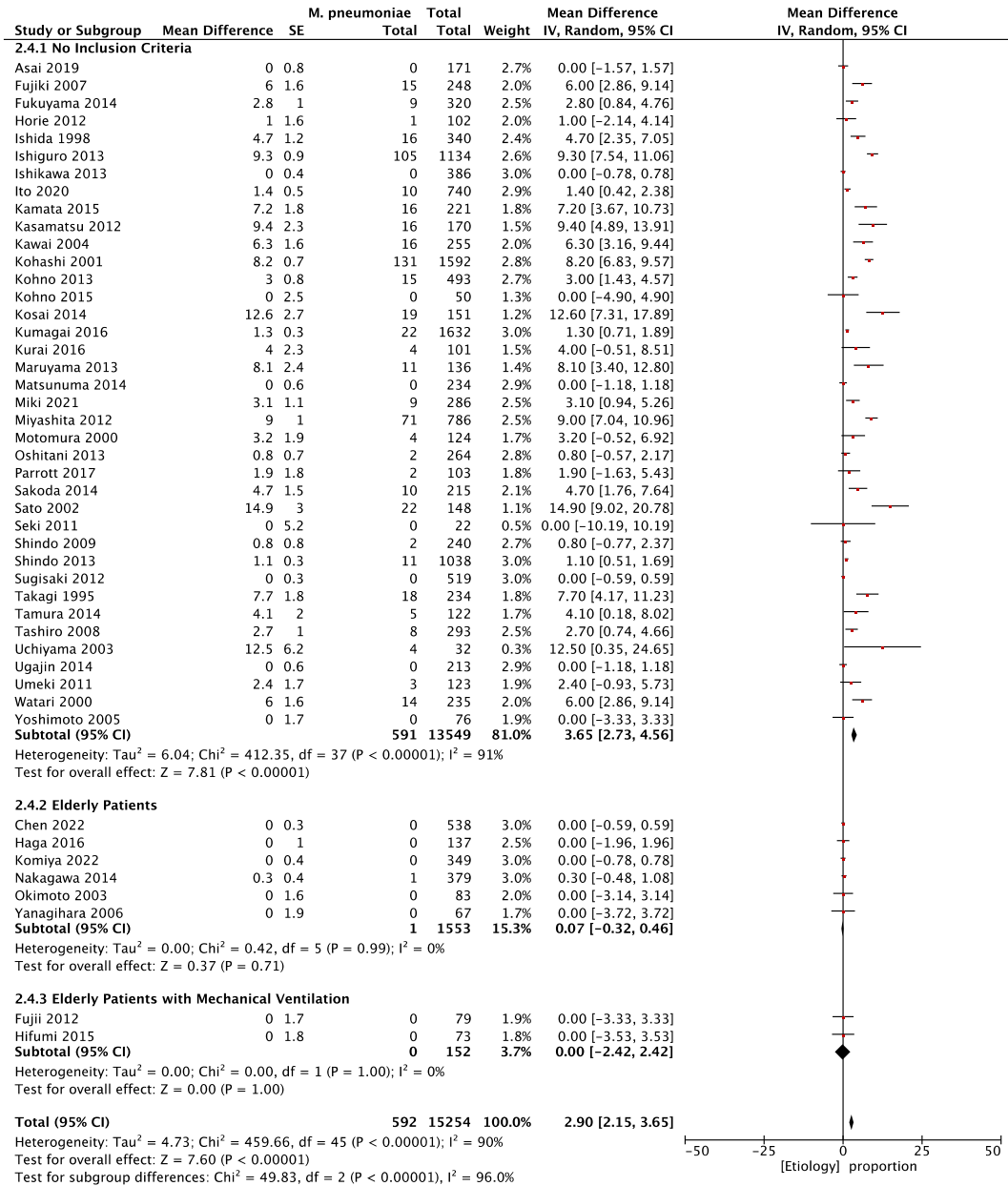




図 Suppl-3-5. Frequency of *K. pneumoniae* isolated in CAP requiring hospitalization.

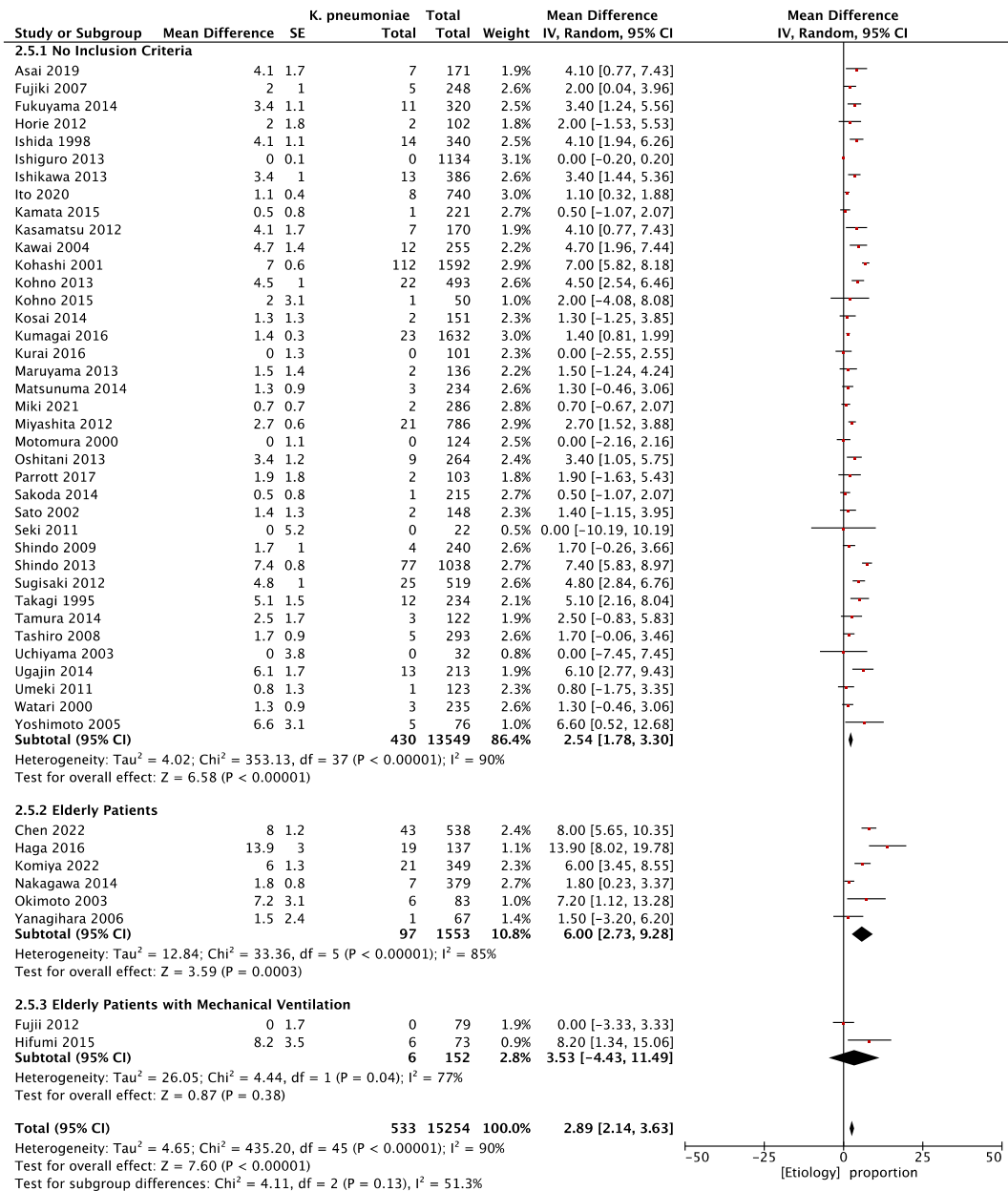


図 Suppl-3-6. Frequency of *P. aeruginosa* isolated in CAP requiring hospitalization.

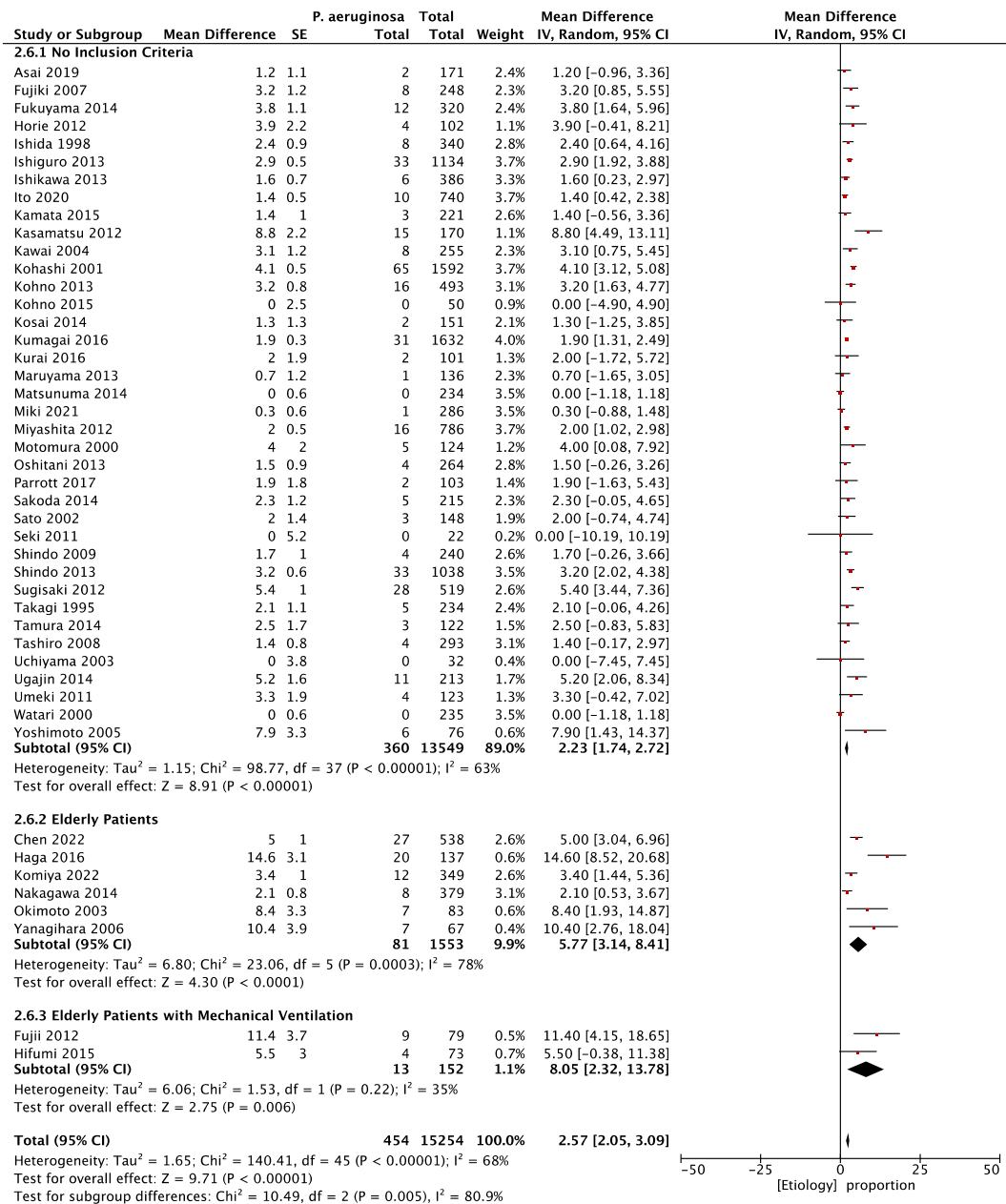


図 Suppl-3-7. Frequency of *M. catarrhalis* isolated in CAP requiring hospitalization.

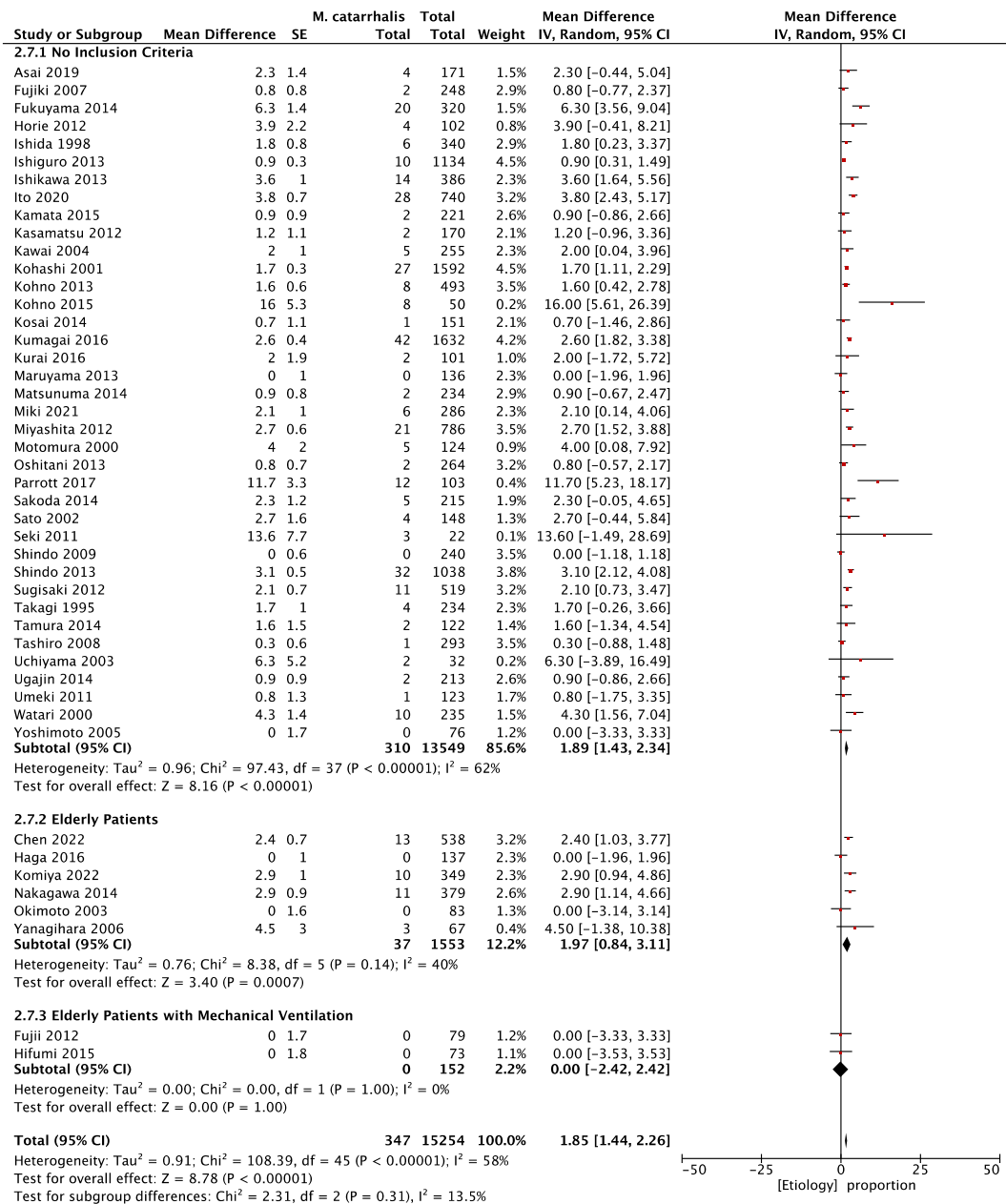


図 Suppl-3-8. Frequency of *C. pneumoniae* isolated in CAP requiring hospitalization.

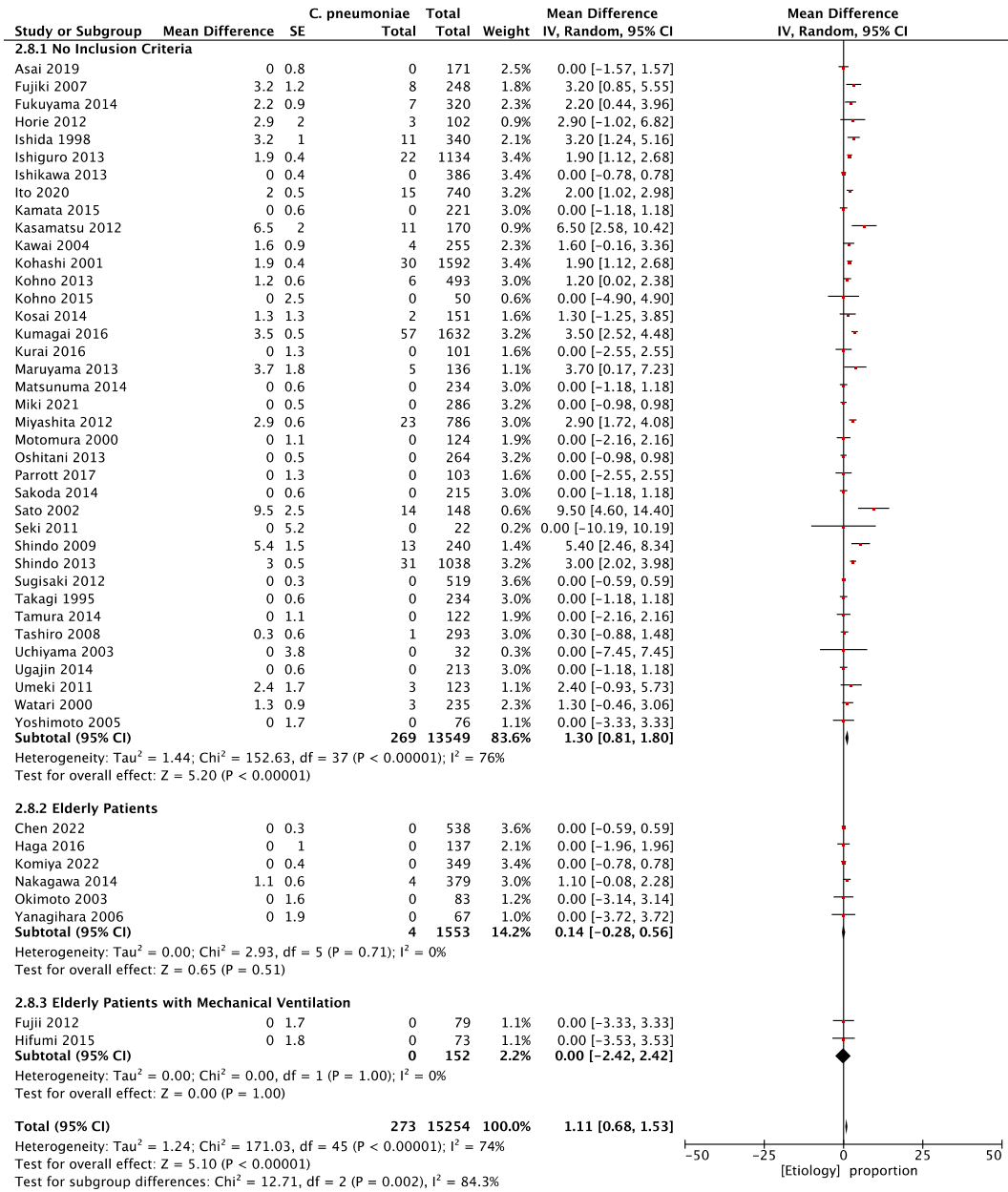


図 Suppl-3-9. Frequency of *L. pneumophila* isolated in CAP requiring hospitalization.

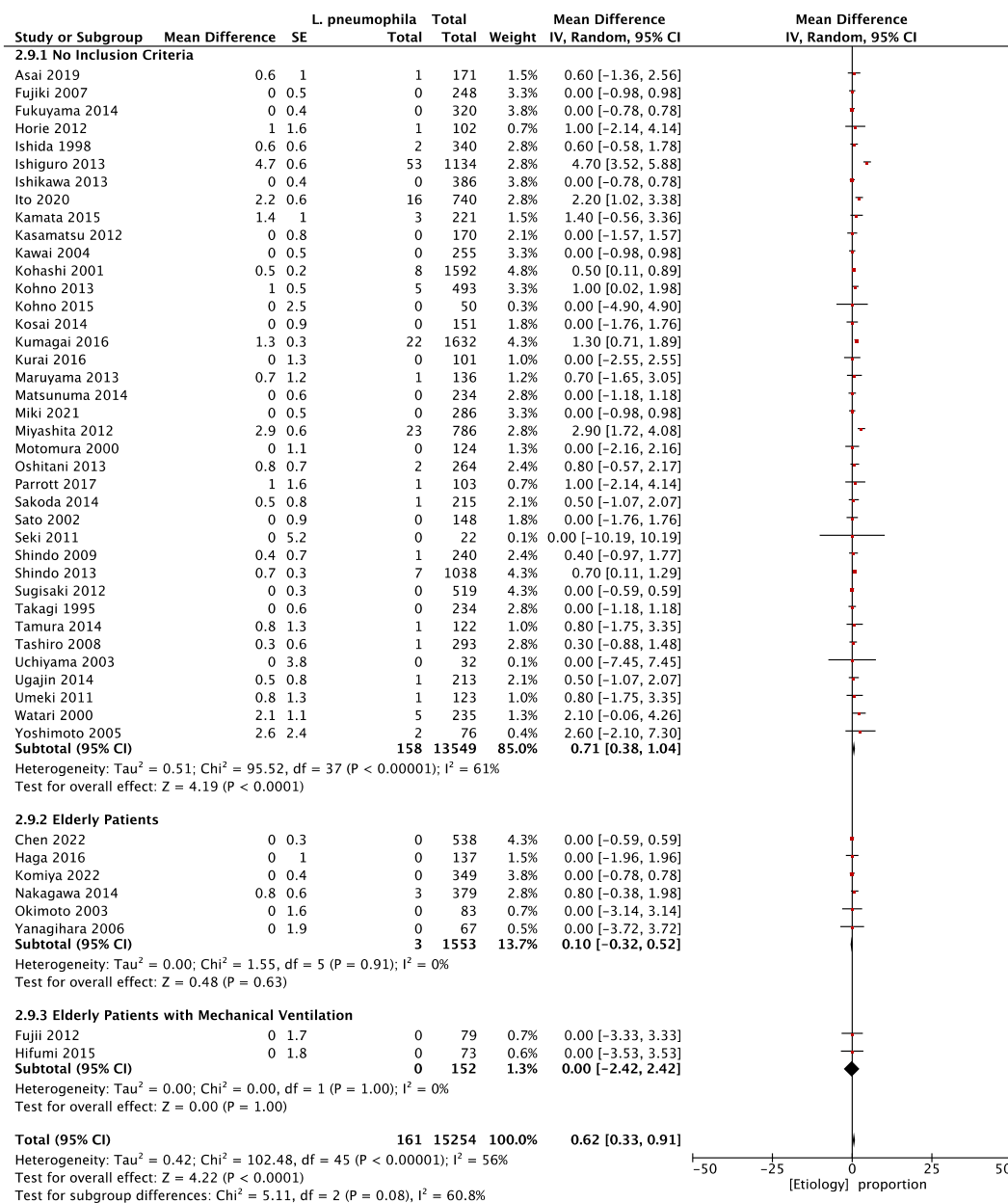


図 Suppl-3-10. Frequency of *E. coli* isolated in CAP requiring hospitalization.

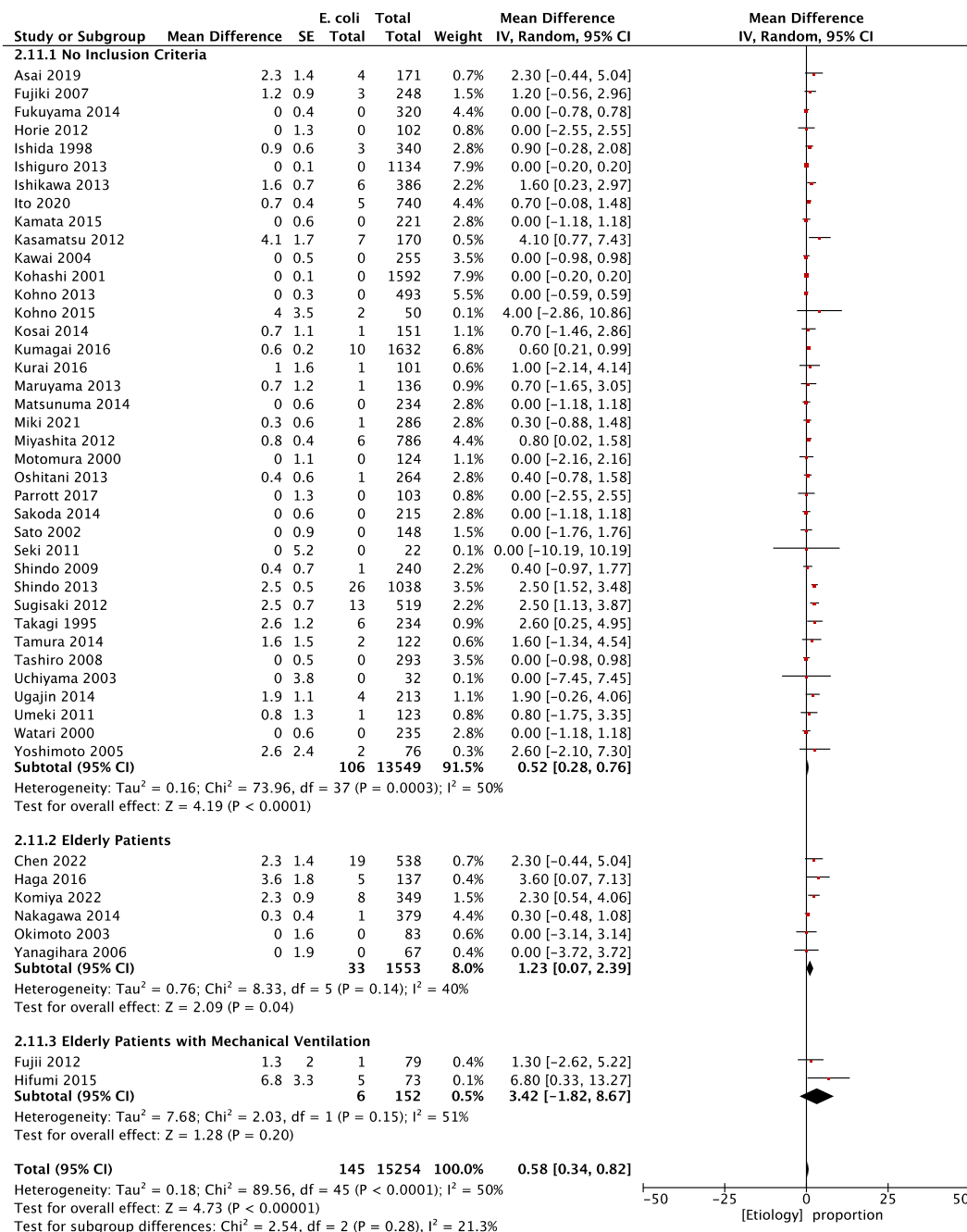


図 Suppl-4-1. Frequency of *S. pneumoniae* isolated in CAP using PCR to search for pathogenic microorganisms.

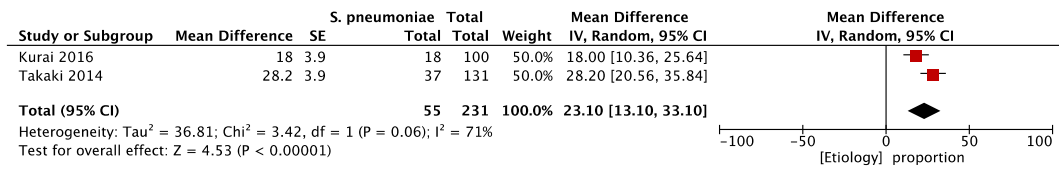


図 Suppl-4-2. Frequency of *H. influenzae* isolated in CAP using PCR to search for pathogenic microorganisms.

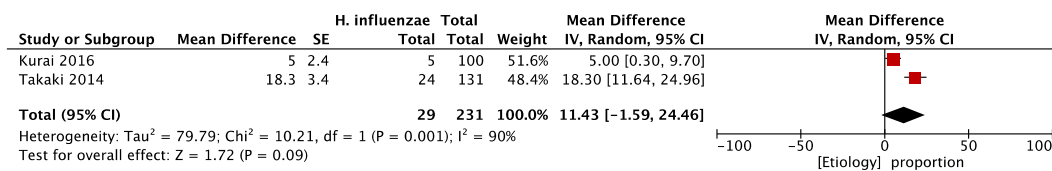




図 Suppl-4-3. Frequency of HEV/HRV isolated in CAP using PCR to search for pathogenic microorganisms.

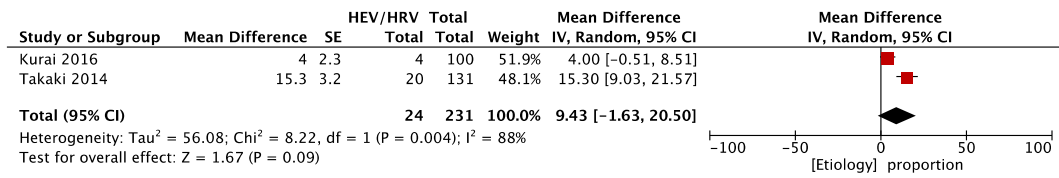


図 Suppl-4-4. Frequency of *M. pneumoniae* isolated in CAP using PCR to search for pathogenic microorganisms.

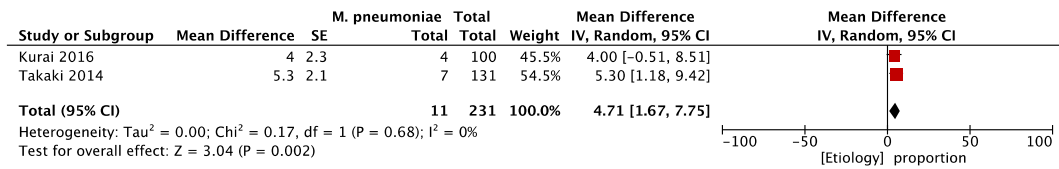


図 Suppl-4-5. Frequency of hMPV isolated in CAP using PCR to search for pathogenic microorganisms.

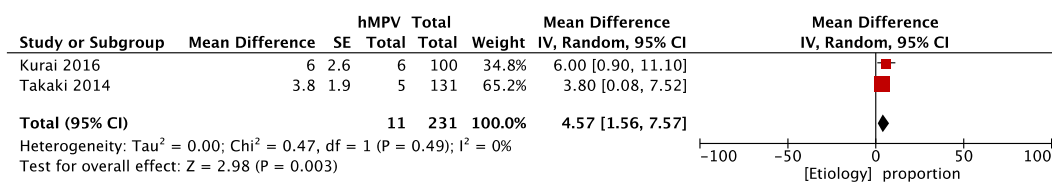


図 Suppl-4-6. Frequency of *S. aureus* isolated in CAP using PCR to search for pathogenic microorganisms.

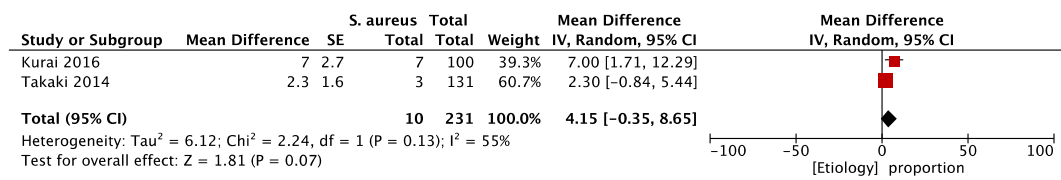


図 Suppl-4-7. Frequency of RSV isolated in CAP using PCR to search for pathogenic microorganisms.

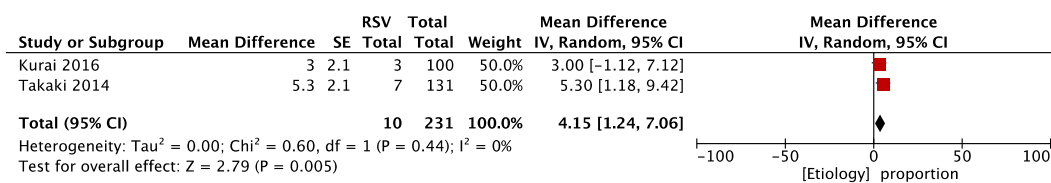


図 Suppl-4-8. Frequency of *M. catarrhalis* isolated in CAP using PCR to search for pathogenic microorganisms.

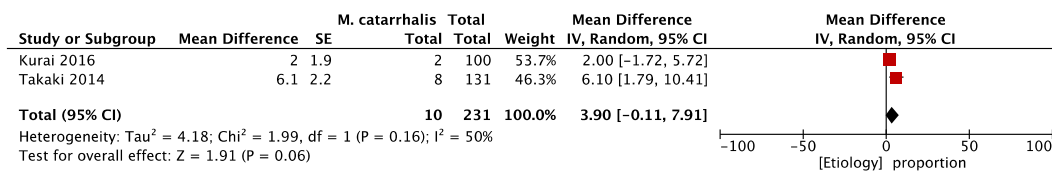
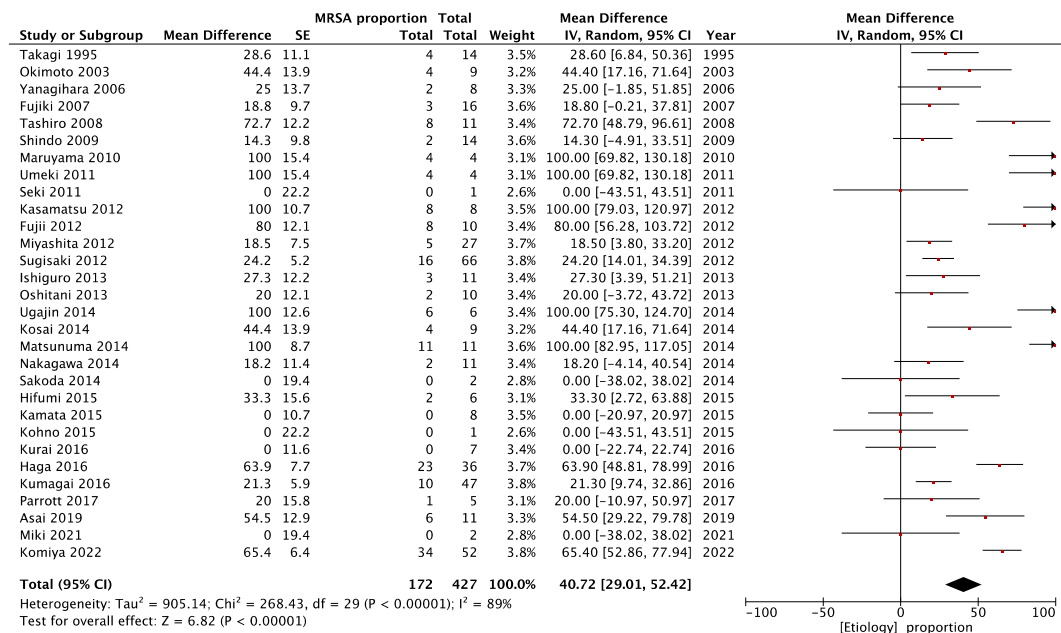


図 Suppl-5. Frequency of MRSA in CAP.



SR2 は Review Manager にて解析を行った。同ソフトの仕様により本来解析者の意図しない記載があるため留意されたい。

上段に[Mean Difference]の記載があるが、平均差ではなく起炎菌割合の解析を行っている。上段に[Total]の表示が重複しているが左列が当該菌種の検出人数、右列に観察者総数を記している。[Test for overall effect]は本解析とは無関係の数字が提示されている。



SR3

CAP 治療における第一選択薬としてのニューキノロン

図 Suppl-1. 臨床的奏効率.

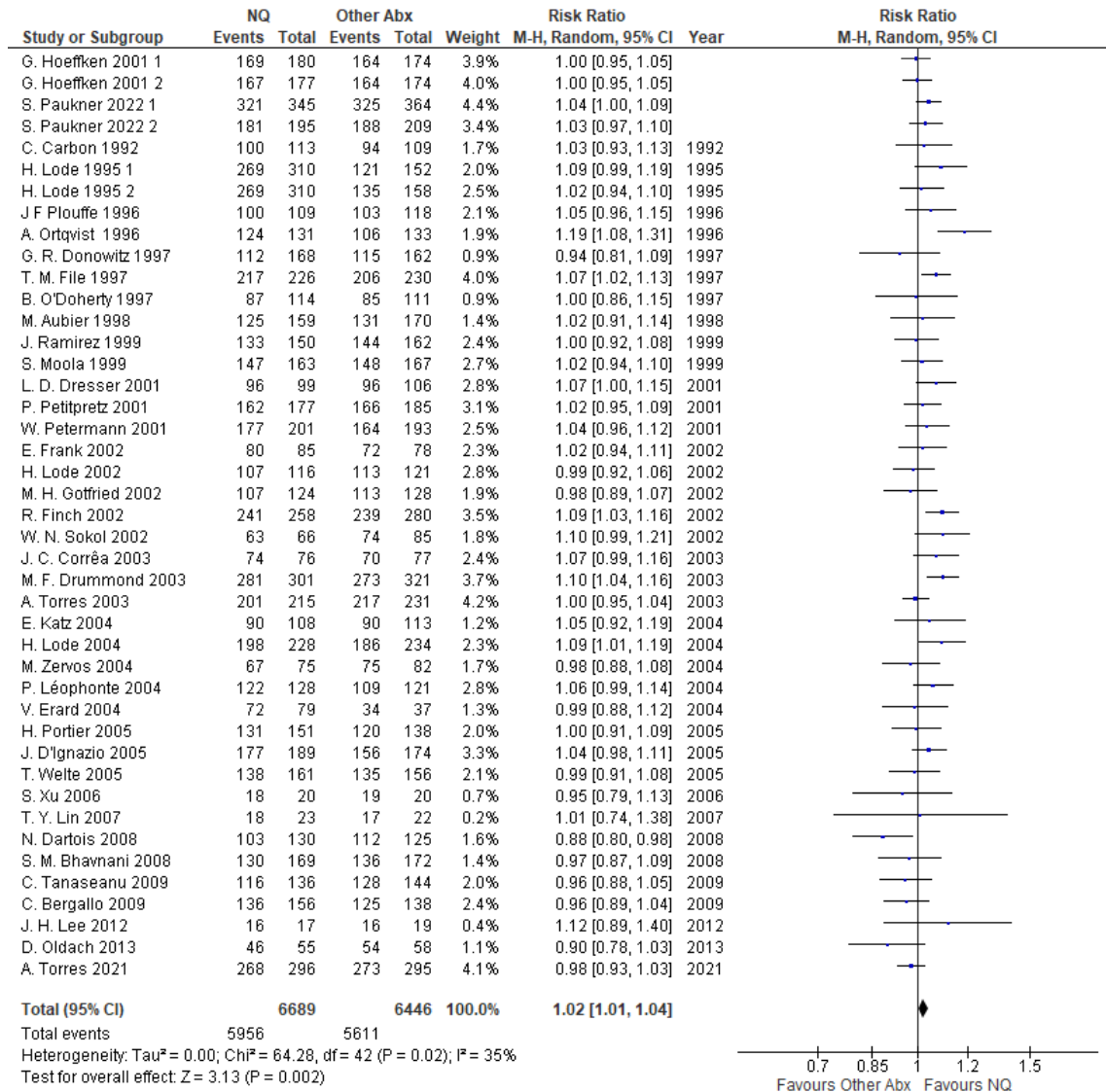


図 Suppl-2. 微生物学的奏効率.

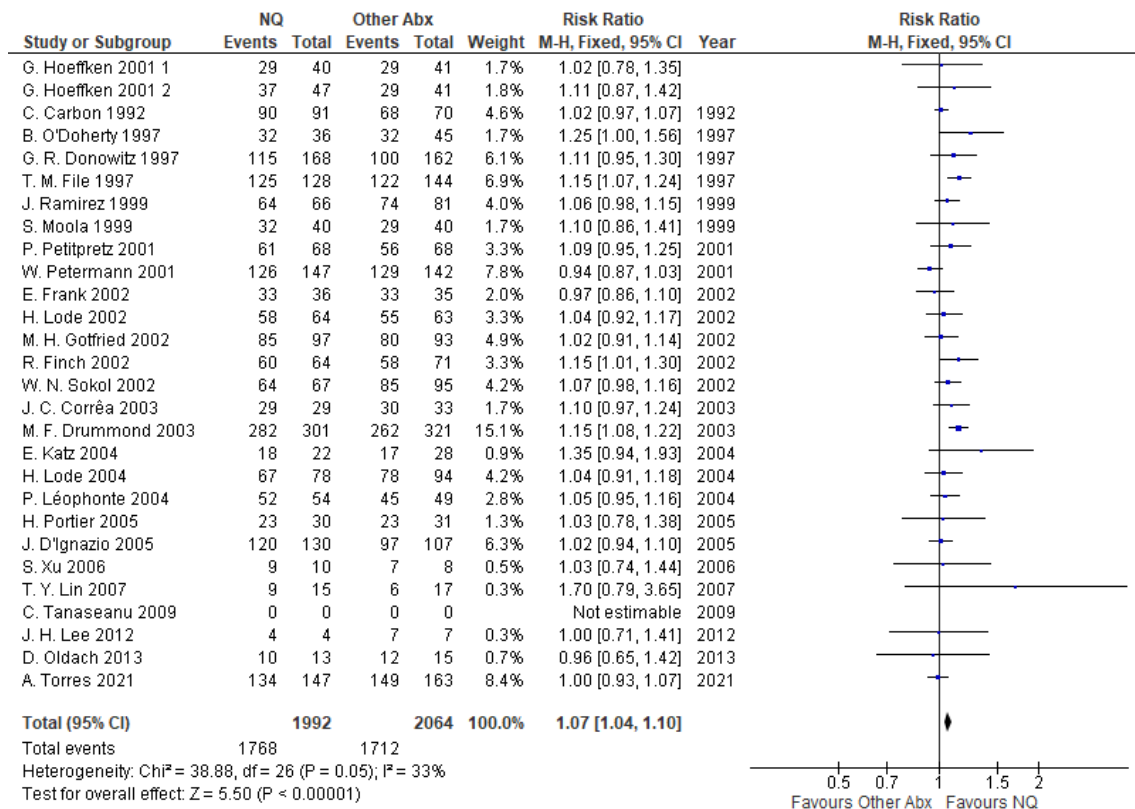


図 Suppl-3. 入院期間.

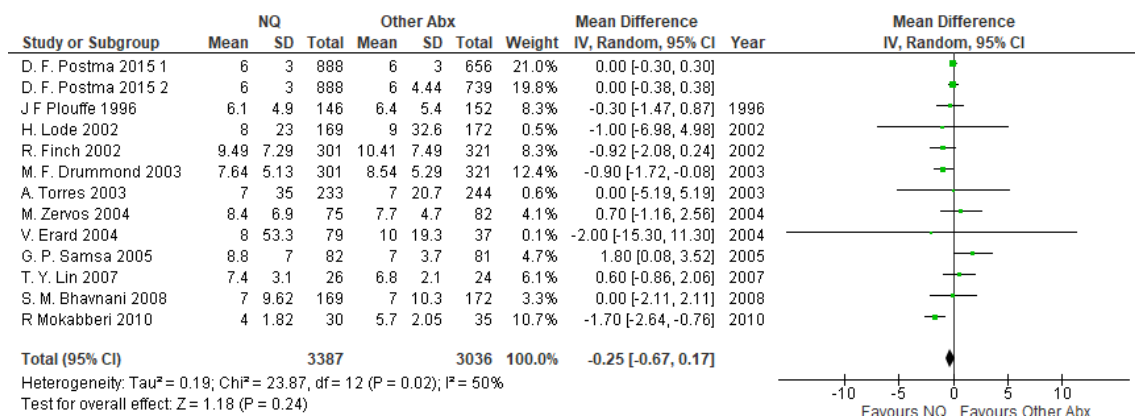


図 Suppl-4. 早期臨床的奏効率.

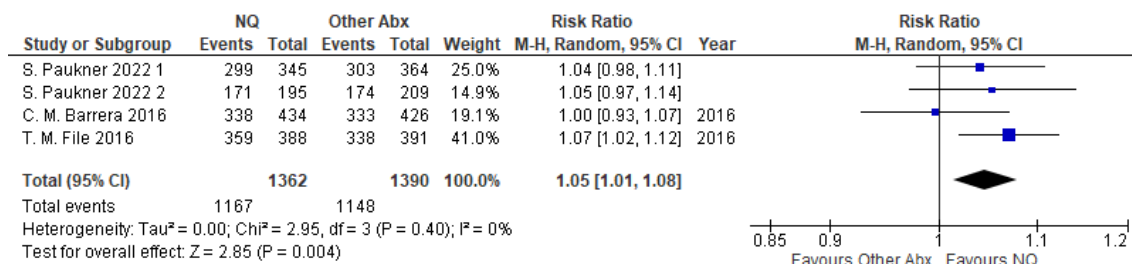


図 Suppl-5. 副作用発生率.

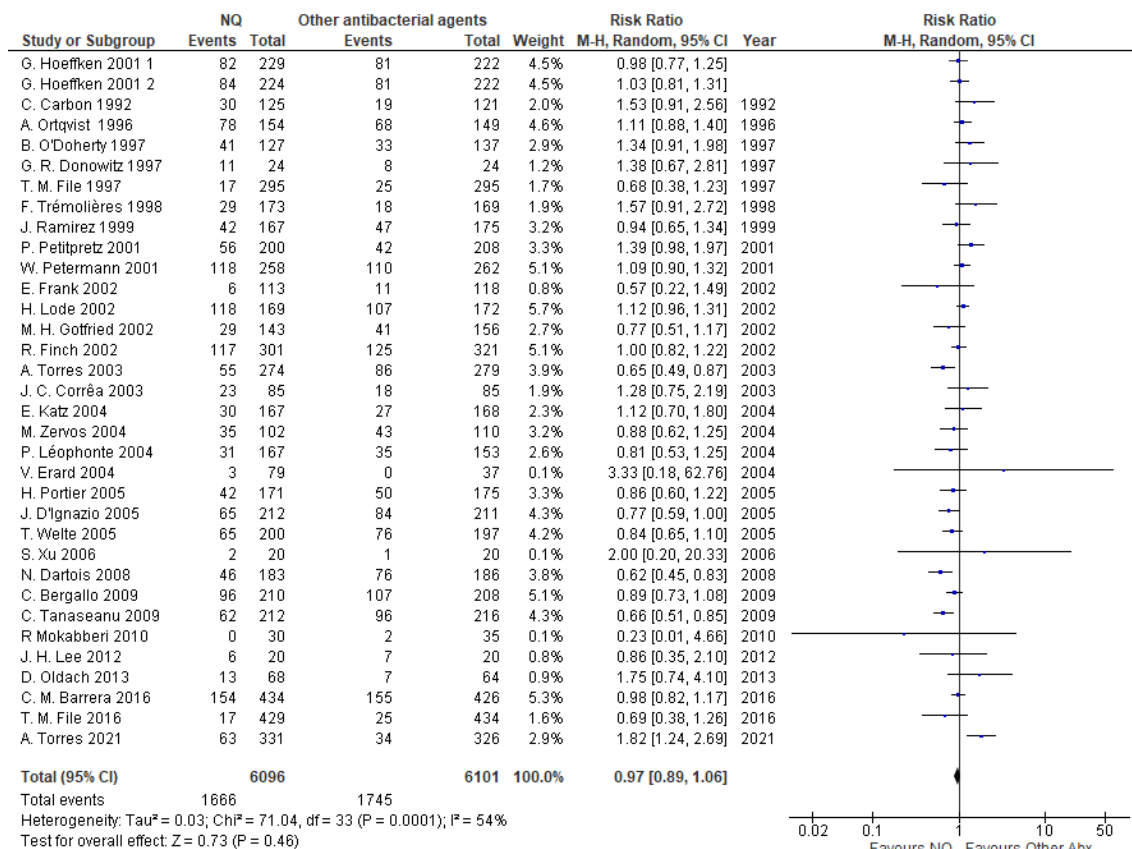
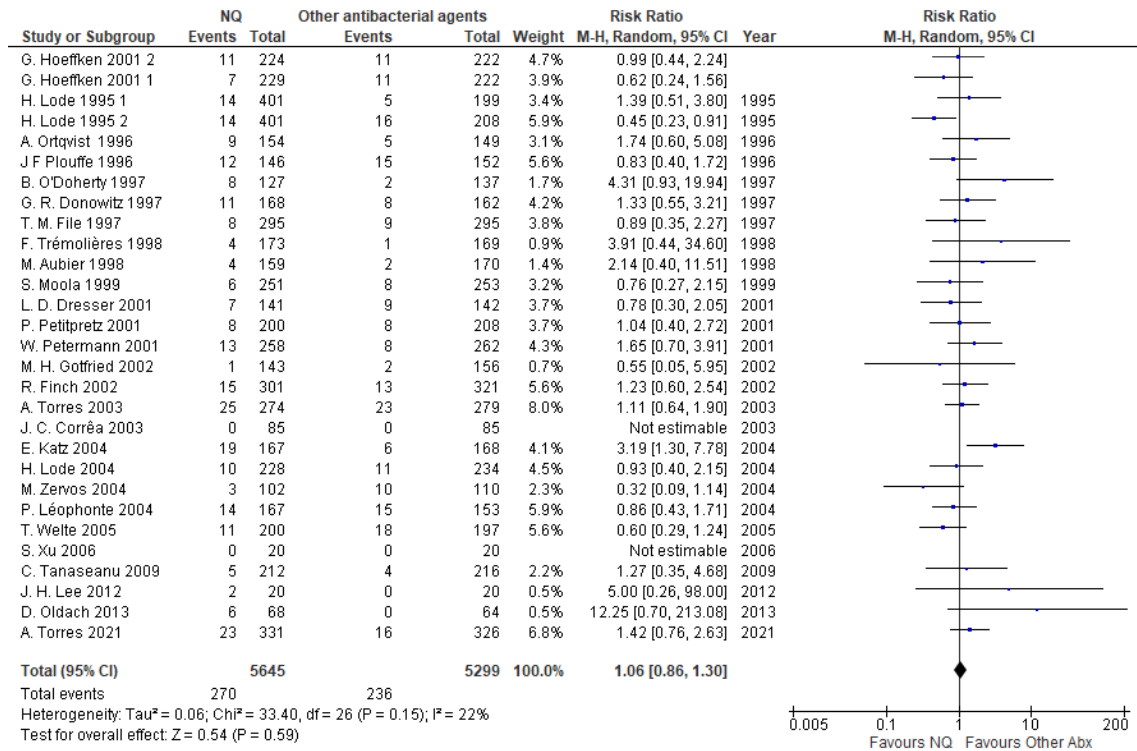


図 Suppl-6. 副作用による中断率.



SR4

NHCAP、HCAP の耐性菌 のリスク因子は何か？

図 Suppl-1. 年齢.

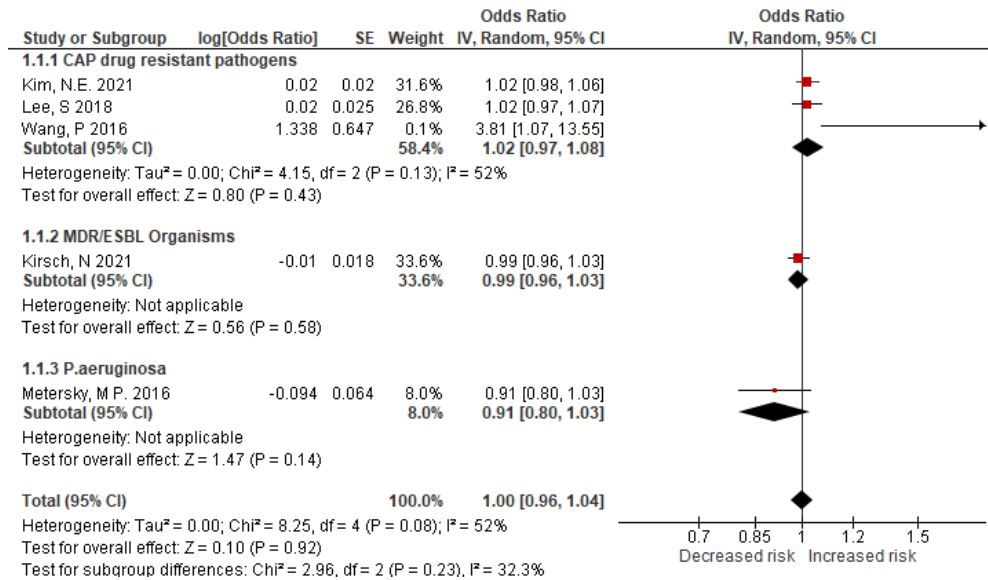


図 Suppl-2. 男性.

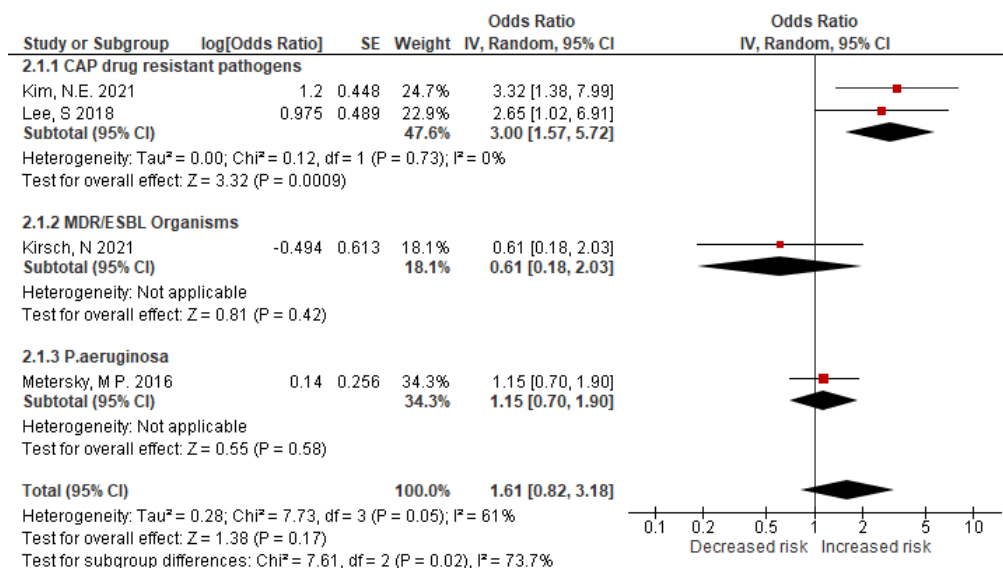


図 Suppl-3. 低 BMI.

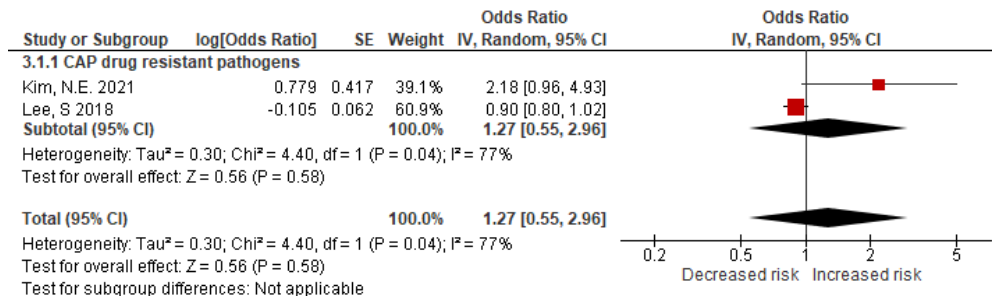


図 Suppl-4. PSI Class V.

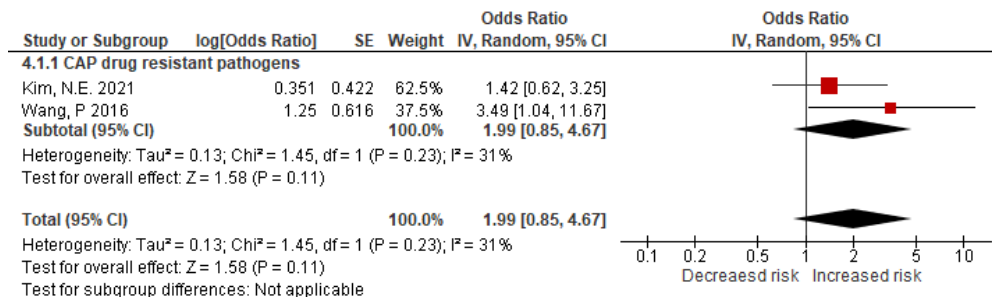


図 Suppl-5. 介護施設入所歴.

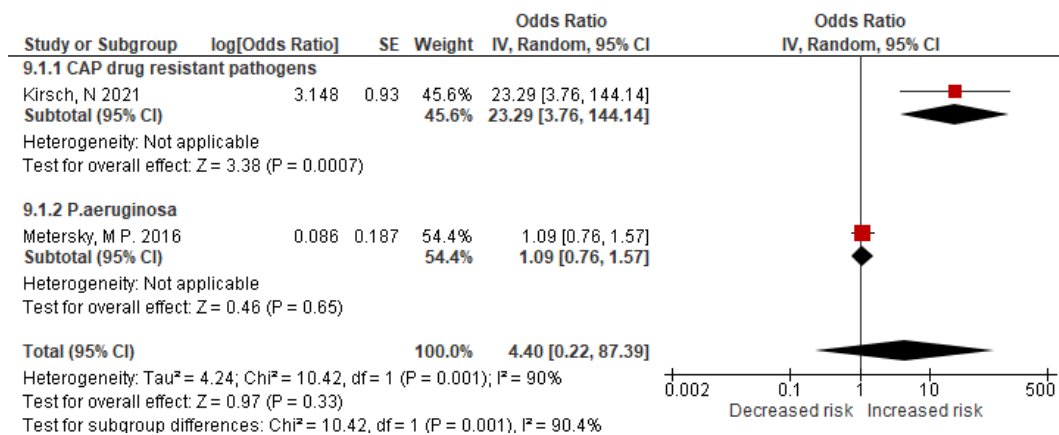


図 Suppl-6. 過去の耐性菌検出歴.

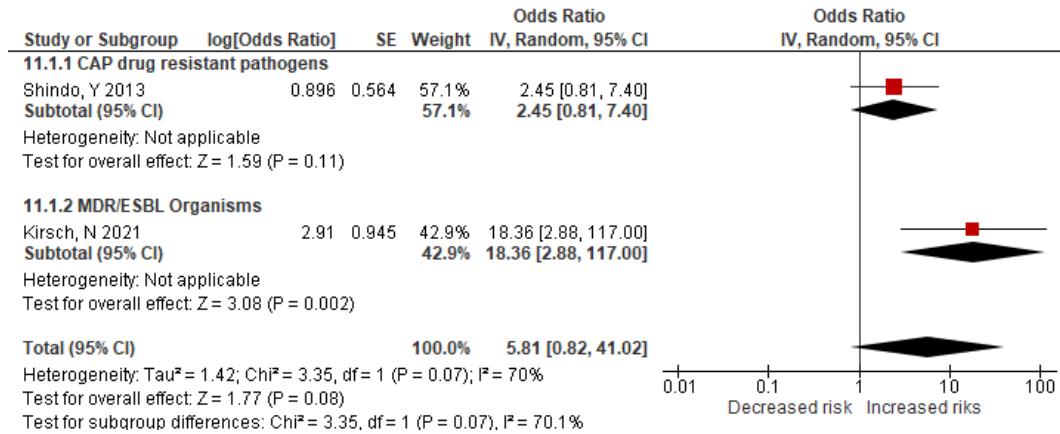
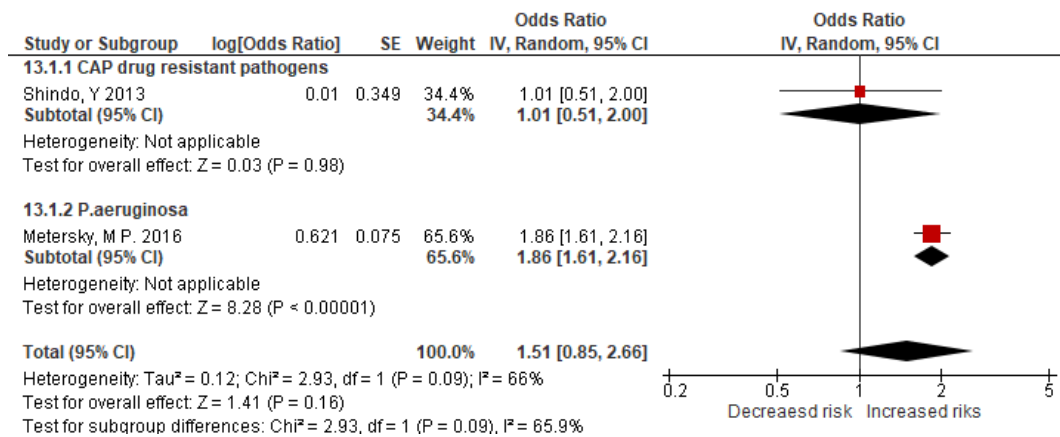


図 Suppl-7. 慢性呼吸器疾患.

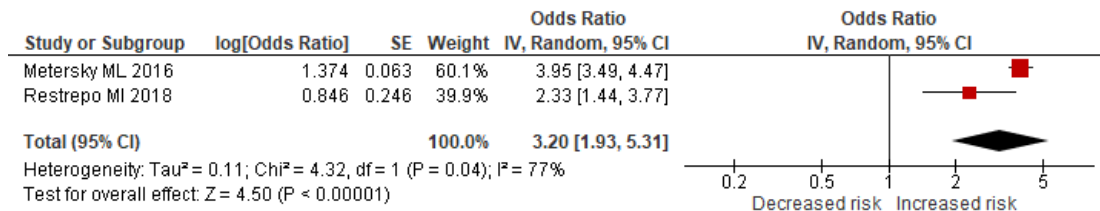


SR5

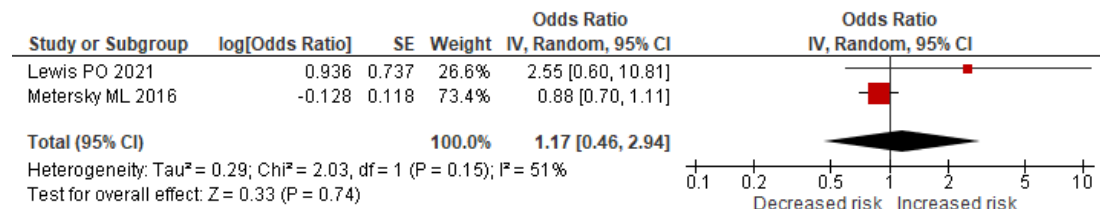
市中発症肺炎 (CAP、HCAP、NHCAP を含めた肺炎群) 耐性菌のリスク因子は何か？

図表 Suppl-1. 臨床的肺炎と判断された群での CAP drug resistant pathogens の因子ごとのメタ解析.

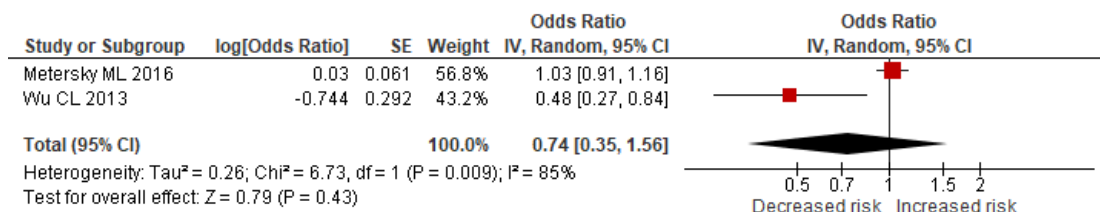
early induction of mechanical ventilation



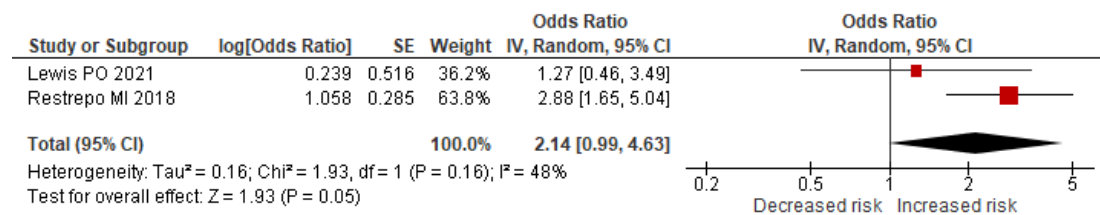
immunosuppression



chemotherapy

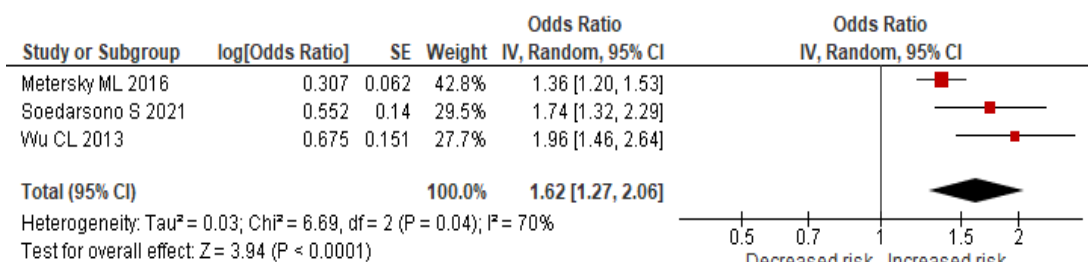


bronchiectasis

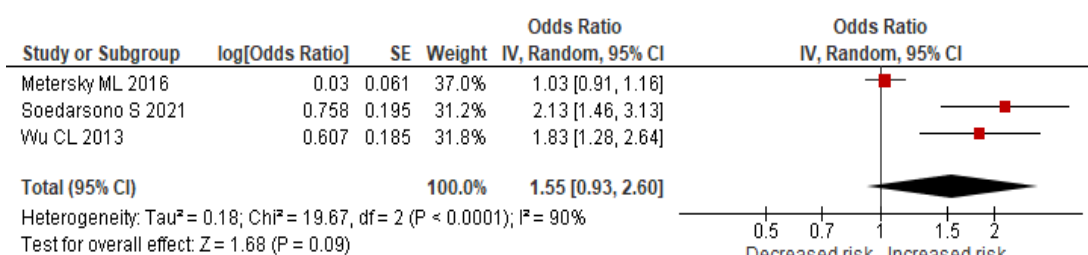




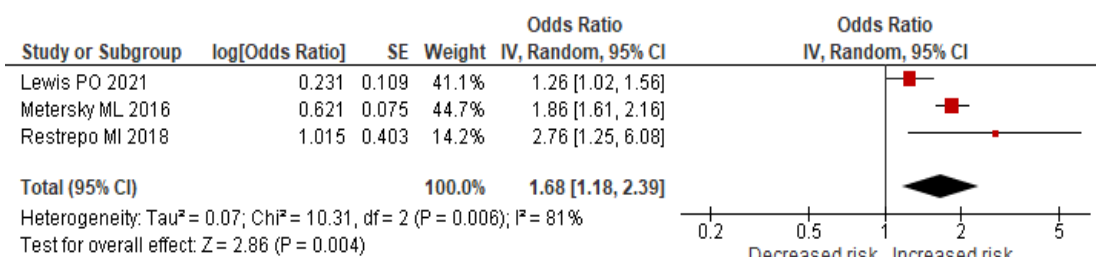
prior hospitalization



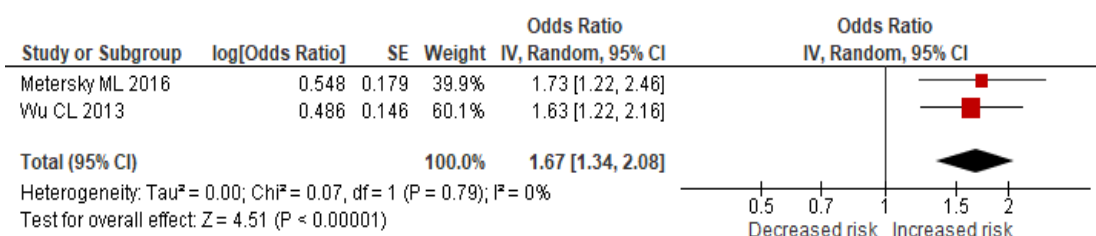
history of cancer



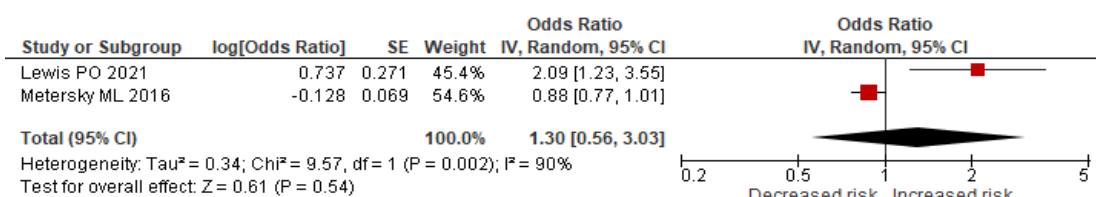
COPD



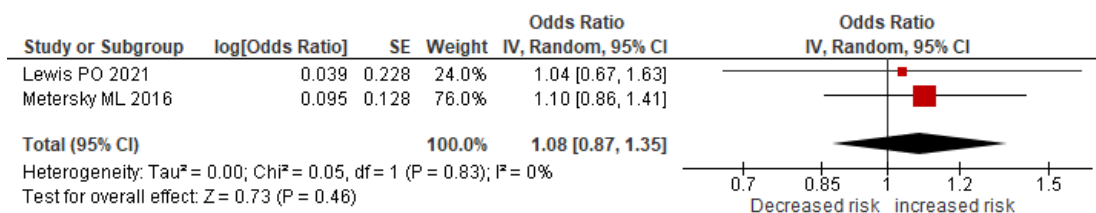
neurologic disorders



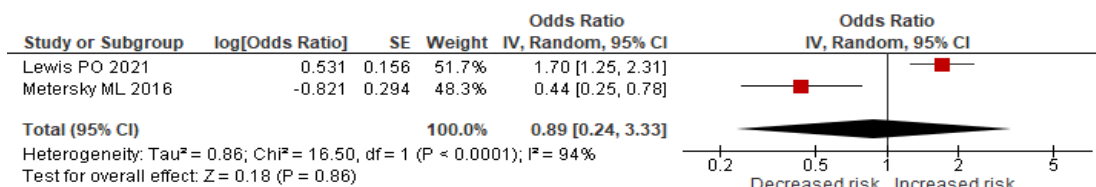
chronic renal disease



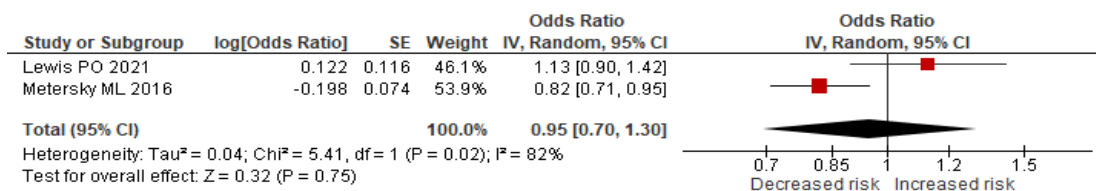
alcohol use



illicit substance use



diabetes mellitus

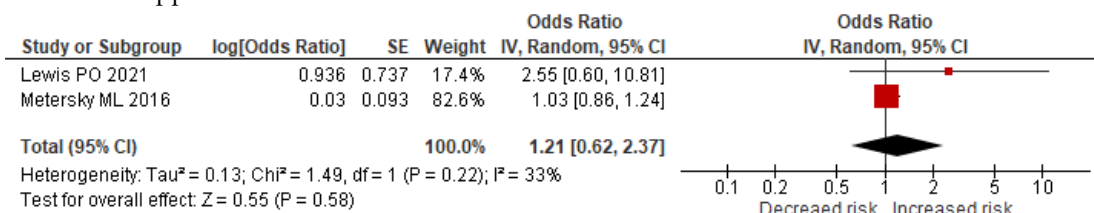


文献が1つだけの因子

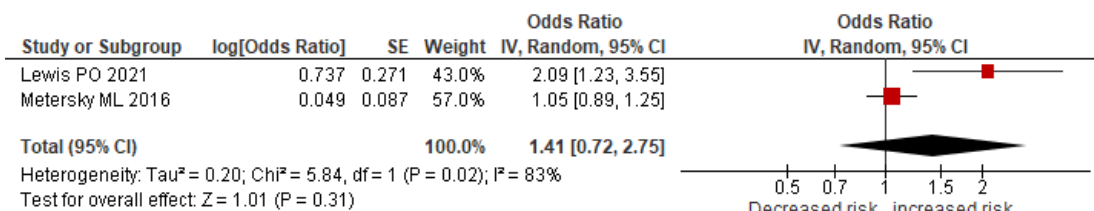
項目	Odds ratio (95% CI)
prior infection/colonization	16.1 (9.48-27.35)
tracheostomy	6.5 (2.61-16.19)
prior use of antibiotics	1.14 (1.00-1.51)
heart disease	1.744 (1.174-2.591)
prior influenza virus infection	2.34 (1.18-4.67)
inhaled corticosteroid	1.4 (1.23-1.61)
residence in a nursing home	1.09 (0.75-1.56)

図表 Suppl-2. 臨床的肺炎と判断された群での MRSA の因子ごとのメタ解析.

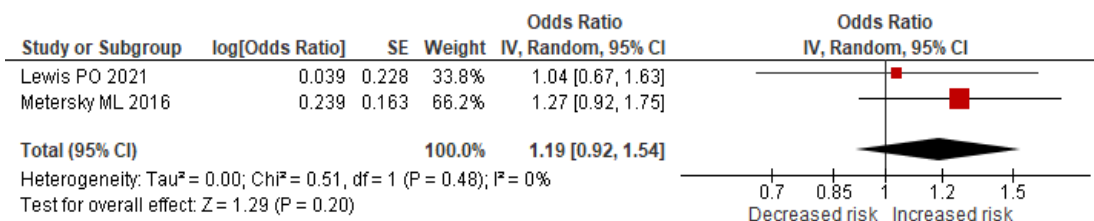
immunosuppression



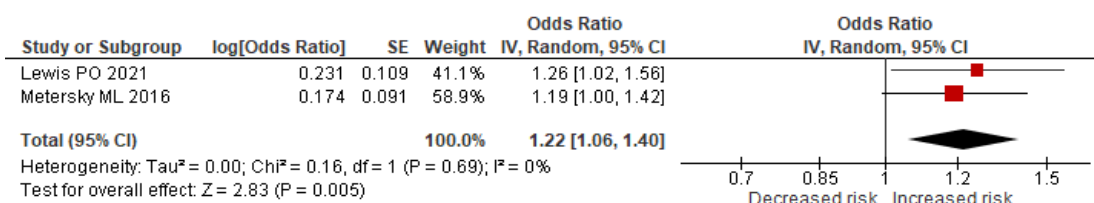
chronic renal disease



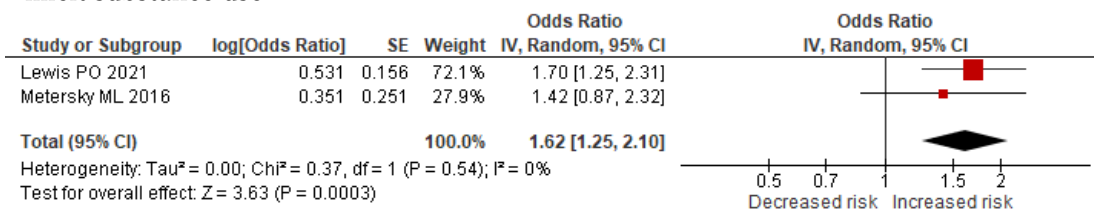
alcohol use



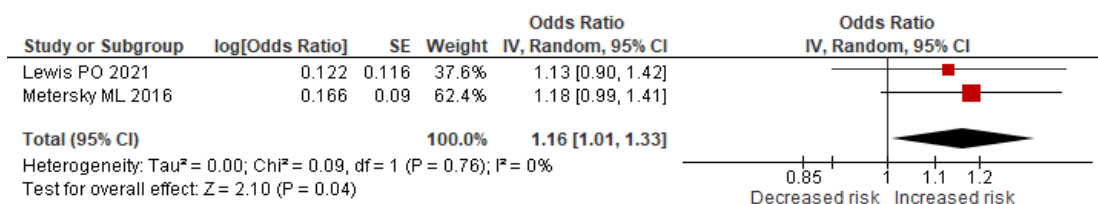
COPD



illicit substance use



diabetes mellitus

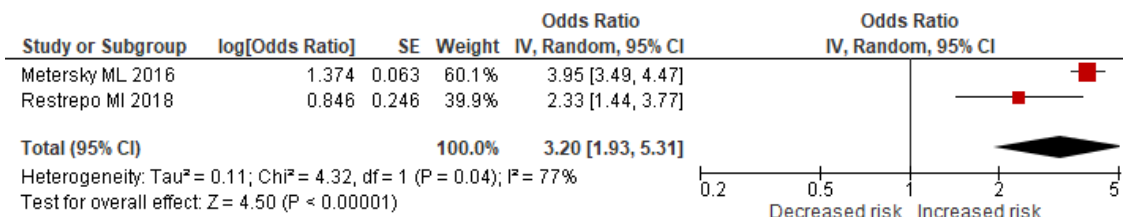


文献が 1 つだけの因子

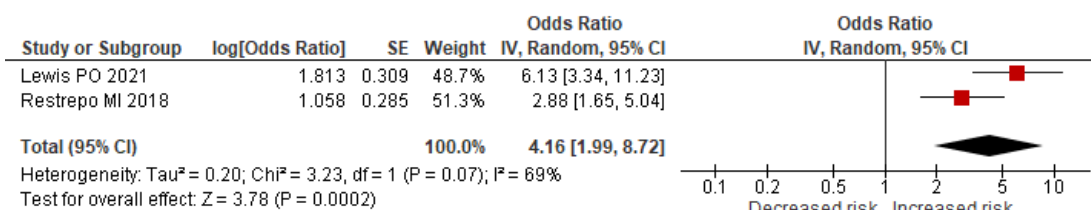
項目	Odds ratio (95% CI)
early induction of mechanical ventilation	3.8 (3.18-4.55)
prior hospitalization	1.62 (1.38-1.91)
prior use of antibiotics	1.3 (1.08-1.56)
history of cancer	1.03 (0.78-1.21)
chemotherapy	1.03 (0.78-1.21)
bronchiectasis	1.27 (0.46-3.48)
neurologic disorders	1.14 (0.67-1.93)
prior influenza virus infection	2.34 (1.18-4.67)
residence in a nursing home	1.96 (1.37-2.81)
inhaled corticosteroid	1.11 (0.91-1.34)

図表 Suppl-3. 臨床的肺炎と判断された群での緑膿菌の因子ごとのメタ解析.

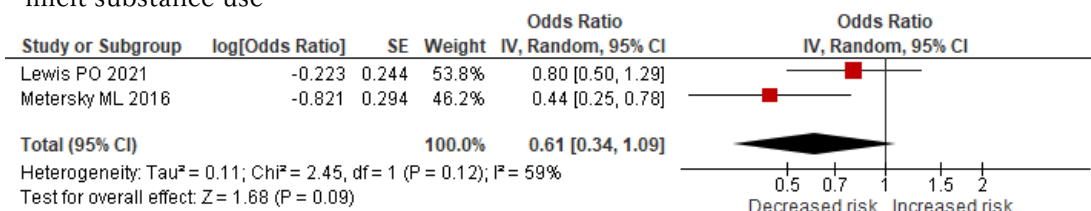
early induction of mechanical ventilation



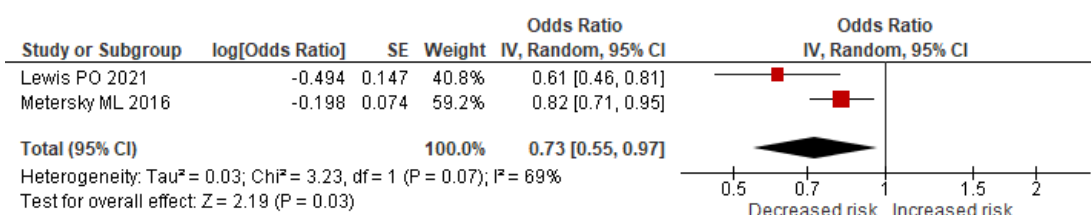
bronchiectasis



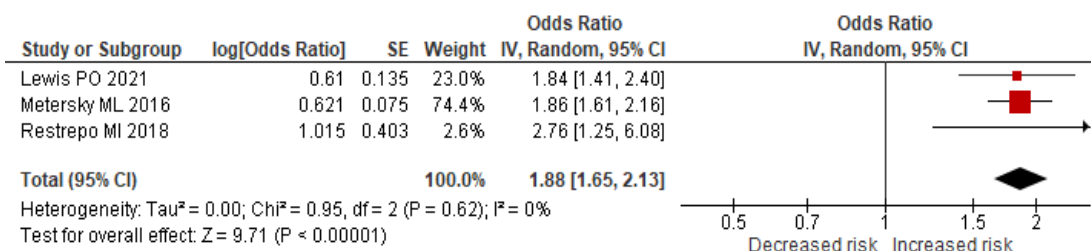
illicit substance use



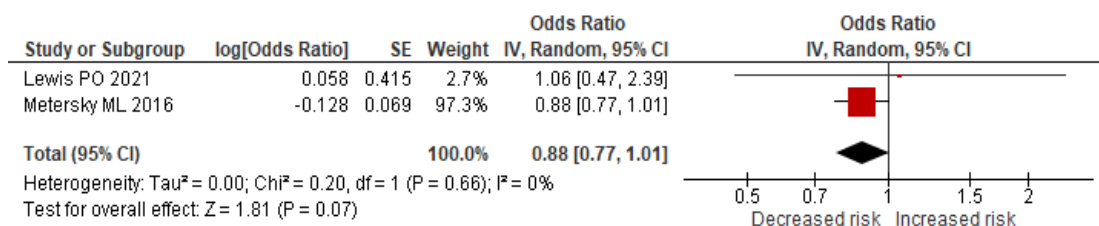
diabetes mellitus



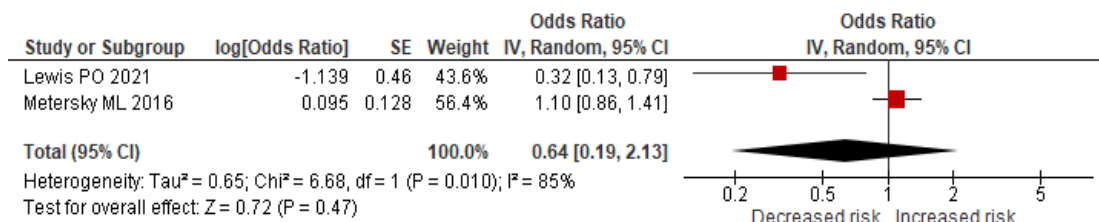
COPD



chronic renal disease



alcohol use



文献が1つだけの因子

項目	Odds ratio (95% CI)
prior infection/colonization	16.1 (9.48-27.35)
tracheostomy	6.5 (2.61-16.19)
prior hospitalization	1.36 (1.21-1.54)
immunosuppression	1.39 (1.22-1.58)
prior use of antibiotics	1.14 (1.00-1.51)
history of cancer	1.03 (0.92-1.17)
chemotherapy	1.03 (0.92-1.17)
neurologic disorders	1.73 (1.22-2.46)
prior influenza virus infection	0.73 (0.23-2.32)
residence in a nursing home	1.09 (0.75-1.56)
inhaled corticosteroid	1.4 (1.23-1.61)

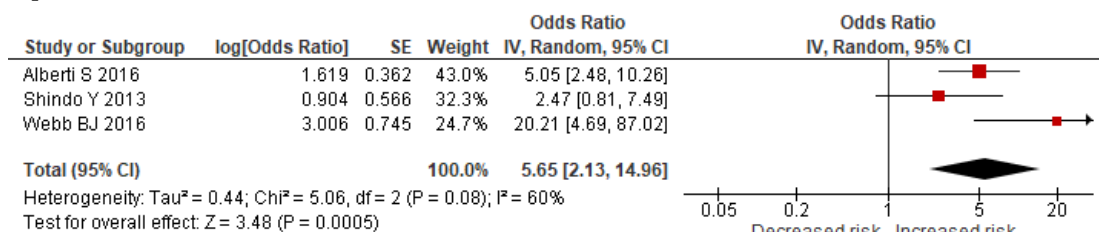
図表 Suppl-4. 臨床的肺炎と判断された群での MDR の因子ごとのメタ解析.

文献が 1 つだけの因子

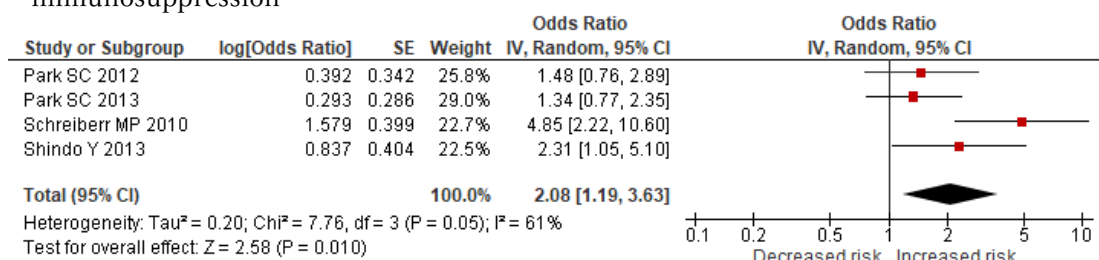
項目	Odds ratio (95% CI)
prior infection/colonization	12.34 (5.05-30.14)
early induction of mechanical ventilation	3.42 (1.47-7.97)
prior hospitalization	1.737 (1.32-2.286)
history of cancer	2.134 (1.455-3.131)
heart disease	1.744 (1.174-2.591)
COPD	2.69 (1.1-6.55)

図表 Suppl-5. 培養検査で検出菌を得た細菌性肺炎群での CAP drug resistant pathogens の因子ごとのメタ解析.

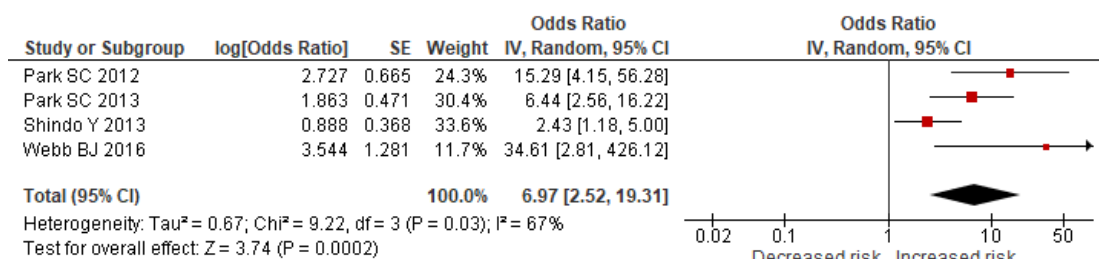
prior infection/colonization



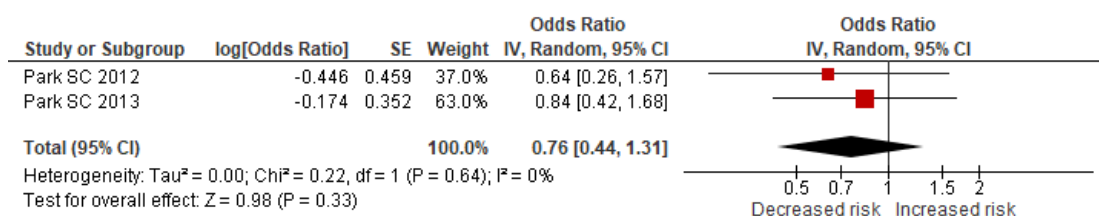
immunosuppression



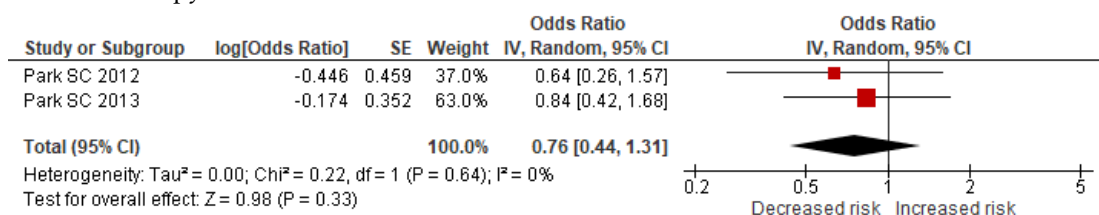
tube feeding



history of cancer

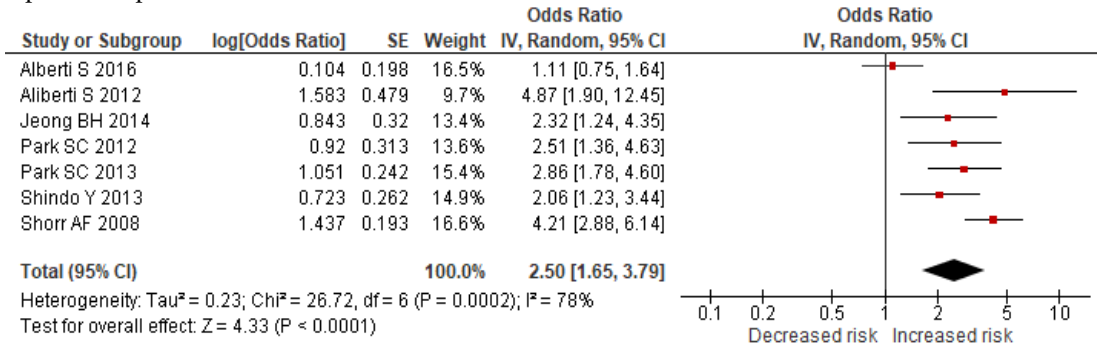


chemotherapy

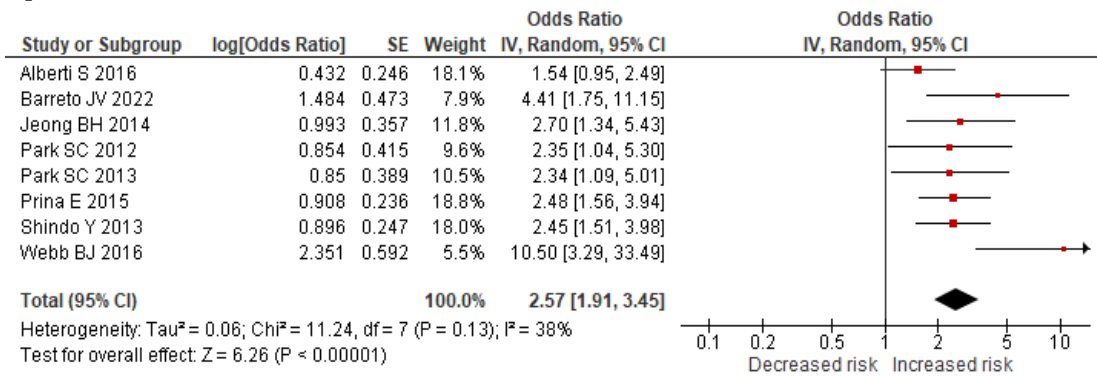




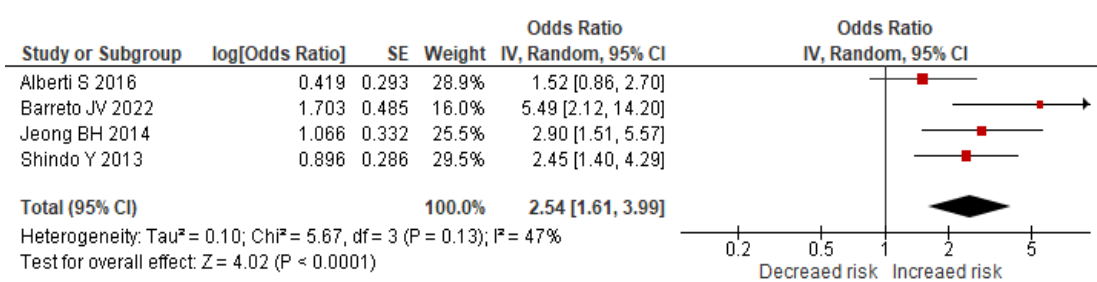
prior hospitalization



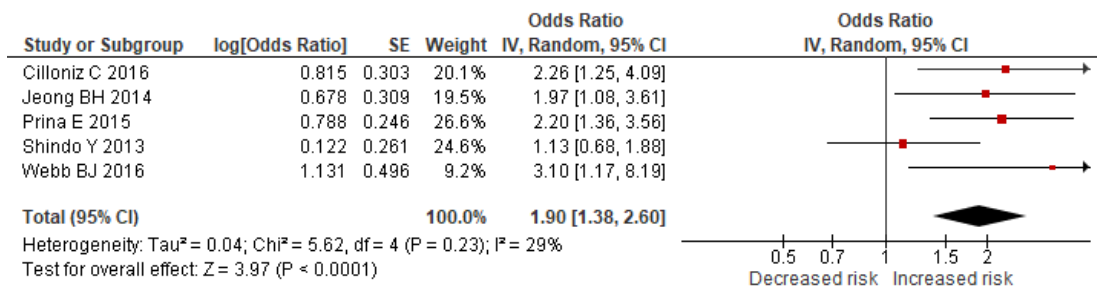
prior use of antibiotics



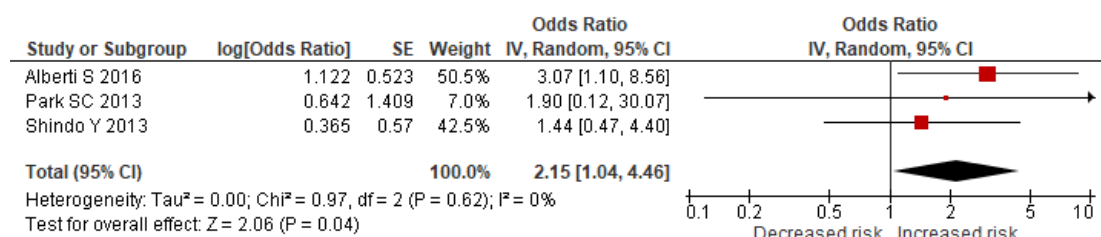
low ADL status



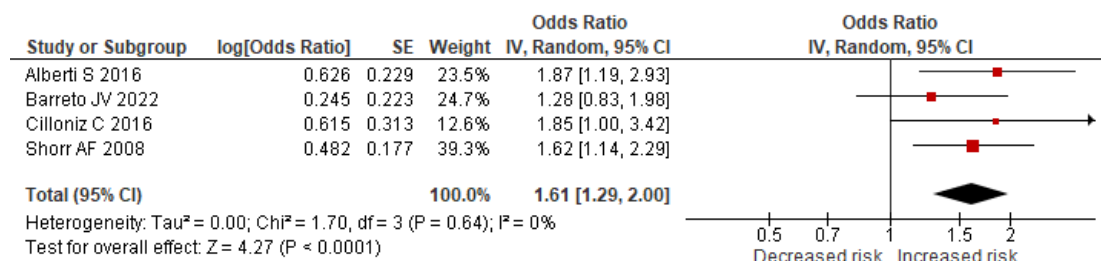
chronic lung disease



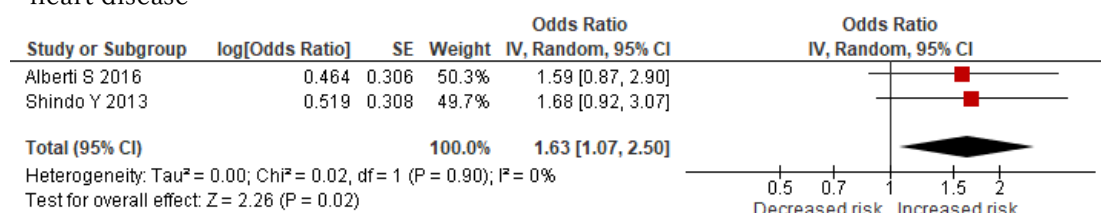
wound care



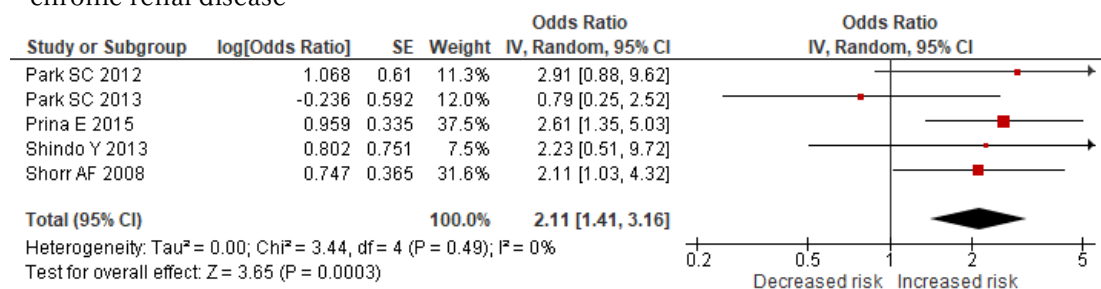
severity of disease



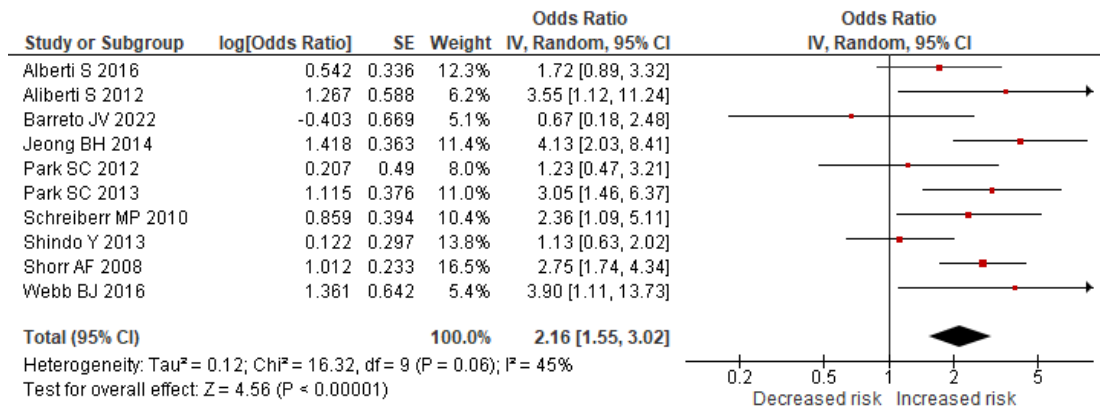
heart disease



chronic renal disease



residence in a nursing home

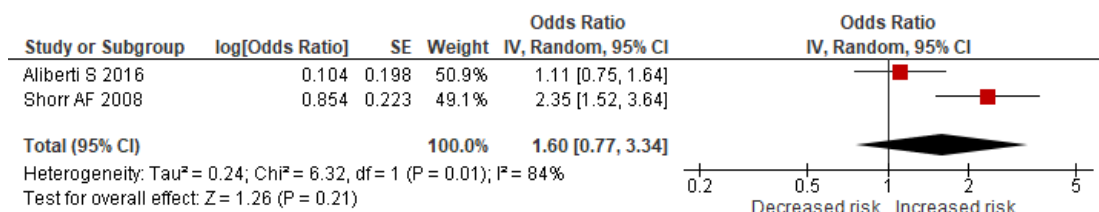


文献が 1 つだけの因子

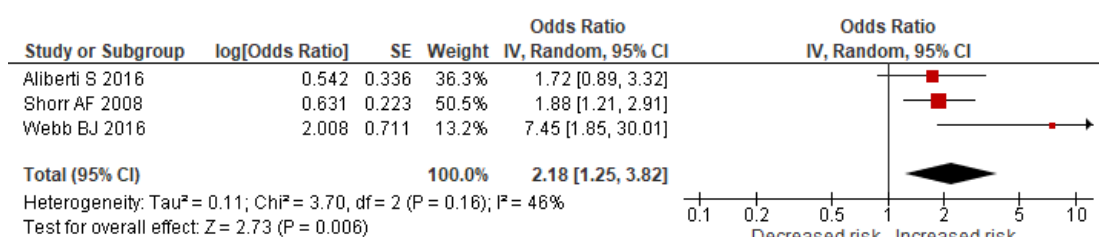
項目	Odds ratio (95% CI)
use of gastric-acid suppressive agents	2.22 (1.39-3.57)
COPD	2 (0.91-4.41)
neurologic disorders	1.36 (0.8-2.29)
indwelling catheter	0.84 (0.4-1.8)
low albumin	1.3 (0.81-2.09)
Charlson's Index	1.174 (0.994-1.387)

図表 Suppl-6. 培養検査で検出菌を得た細菌性肺炎群での MRSA の因子ごとのメタ解析.

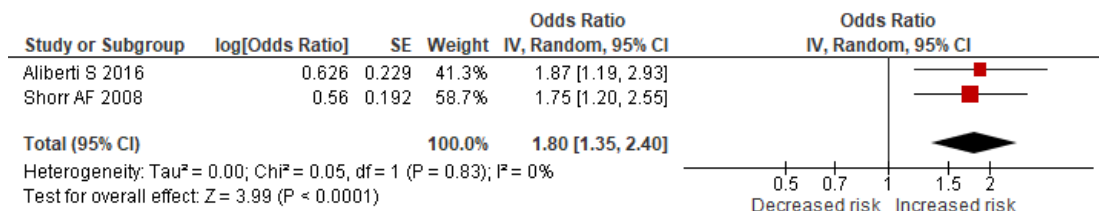
prior hospitalization



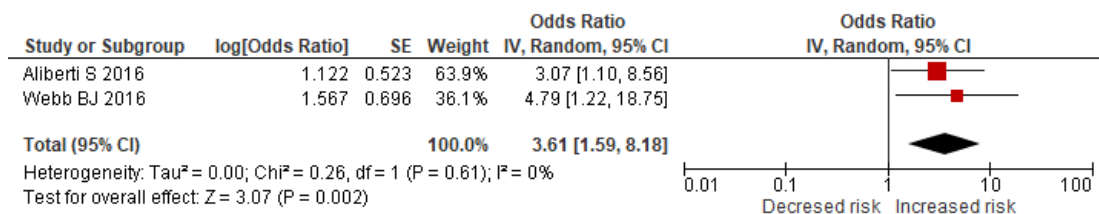
residence in a nursing home



severity of disease



wound care

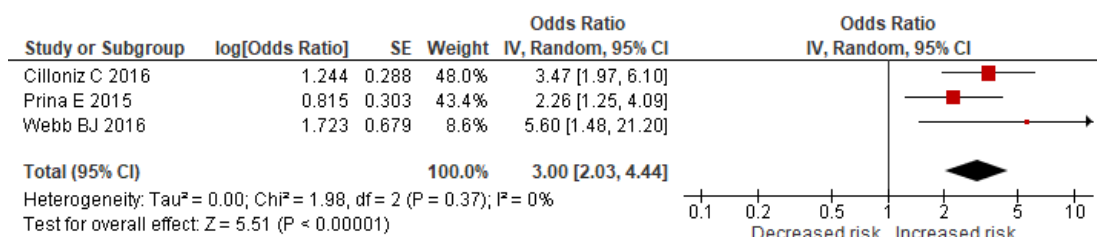


文献が 1 つだけの因子

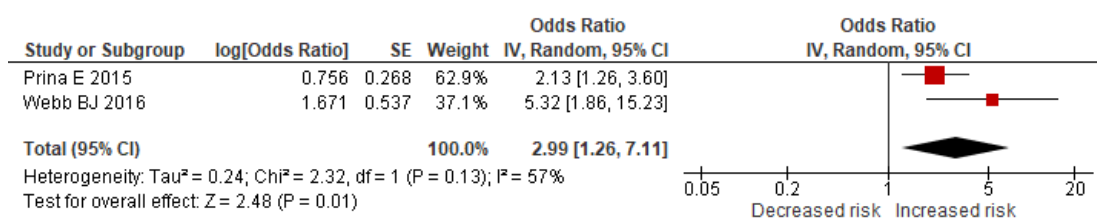
項目	Odds ratio (95% CI)
prior infection/colonization	5.05 (2.48-10.26)
prior use of antibiotics	1.54 (0.95-2.49)
low ADL status	1.52 (0.86-2.71)
heart disease	1.59 (0.87-2.89)

図表 Suppl-7. 培養検査で検出菌を得た細菌性肺炎群での耐性グラム陰性桿菌の因子ごとのメタ解析.

chronic lung disease



prior use of antibiotics



文献が 1 つだけの因子

項目	Odds ratio (95% CI)
prior infection/colonization	5.24 (1.56-17.66)
tube feeding	12.93 (2.28-73.37)
respiratory failure	2.36 (1.28-4.36)
prior influenza virus infection	0.39 (0.21-0.72)
severity of disease	1.85 (1.00-3.41)
inhaled corticosteroid	3.47 (1.97-6.09)

図表 Suppl-8. 培養検査で検出菌を得た細菌性肺炎群での MDR の因子ごとのメタ解析.

文献が 1 つだけの因子

項目	Odds ratio (95% CI)
prior hospitalization	4.87 (1.9-12.4)
prior use of antibiotics	3.32 (1.07-10.31)
residence in a nursing home	3.55 (1.12-11.24)

SR6

NHCAP における原因微生物

図 Suppl-1. *Streptococcus pneumoniae*.

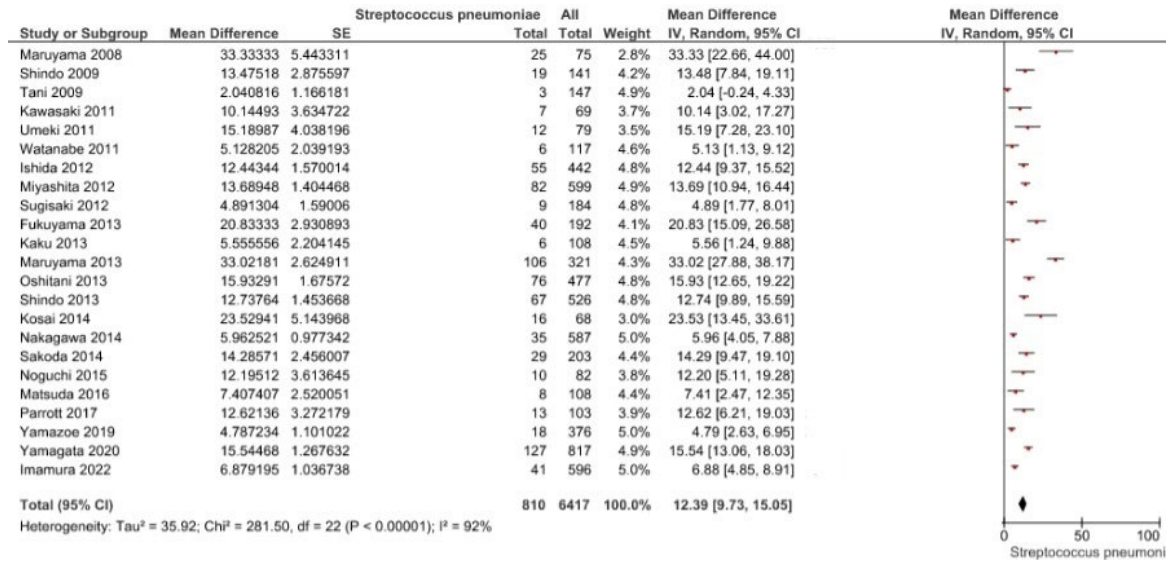


図 Suppl-2. *Klebsiella pneumoniae*.

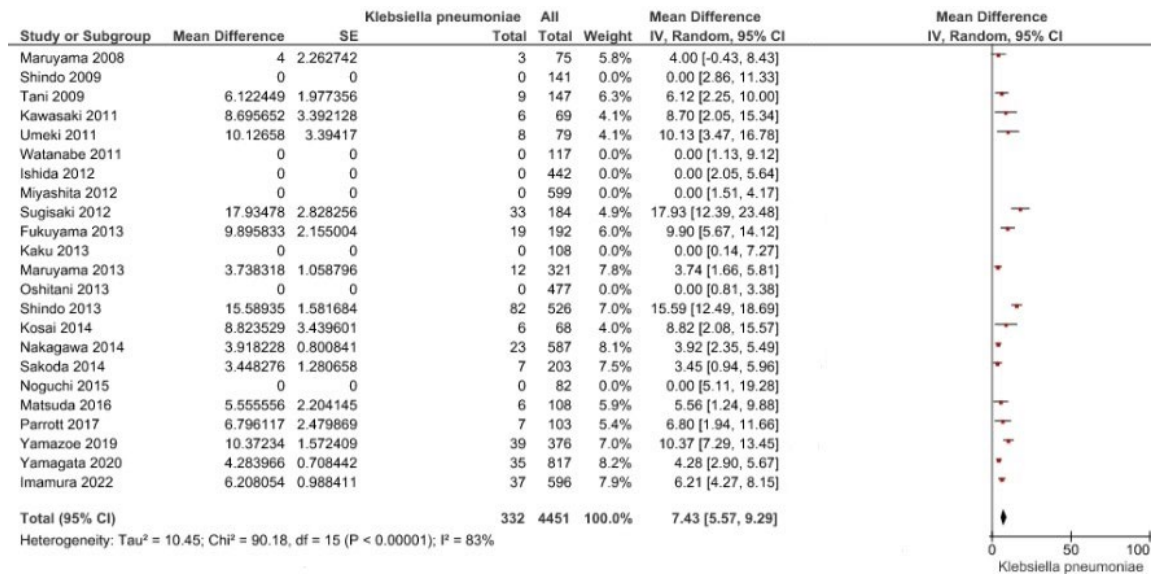


図 Suppl-3. MRSA.

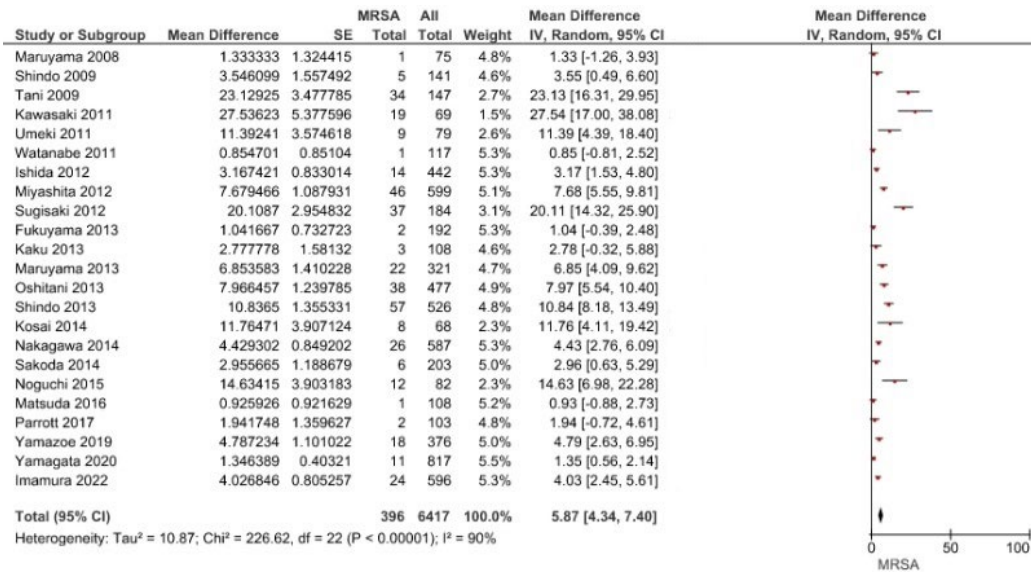


図 Suppl-4. *Pseudomonas aeruginosa*.

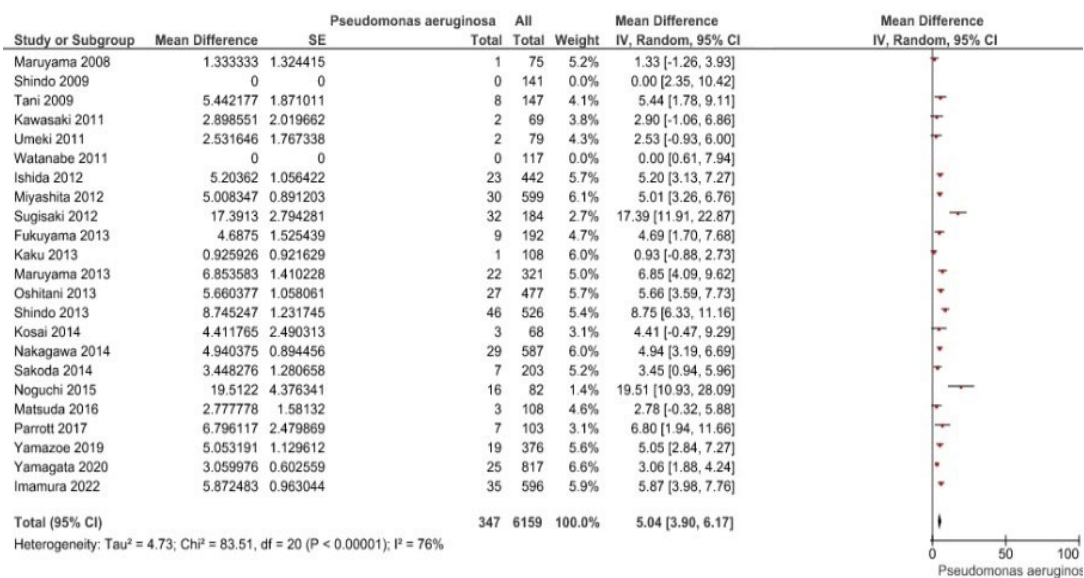




図 Suppl-5. *Haemophilus influenzae*.

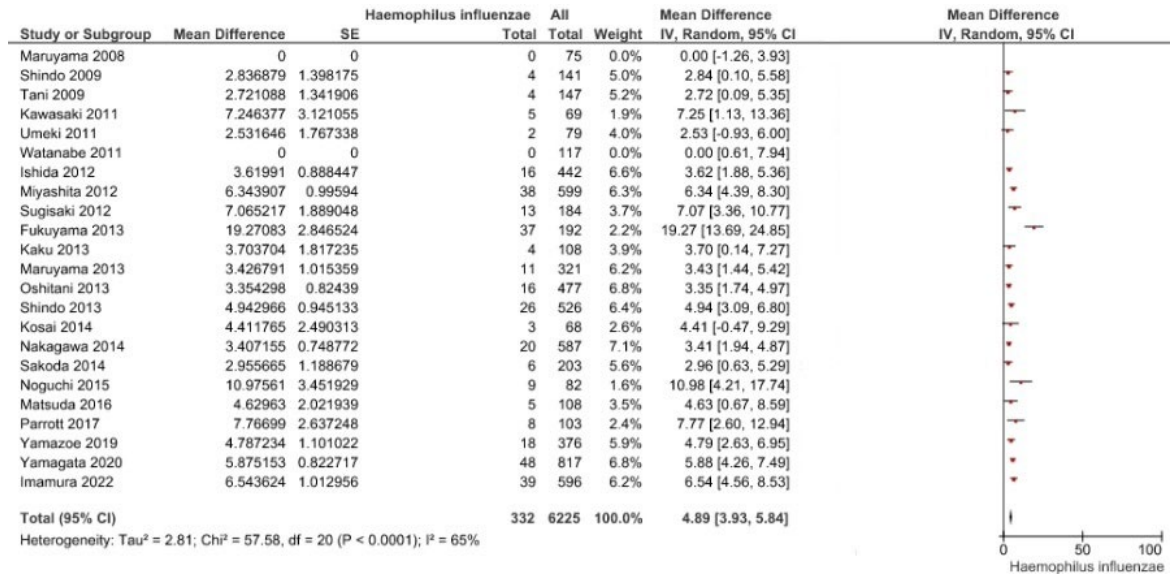
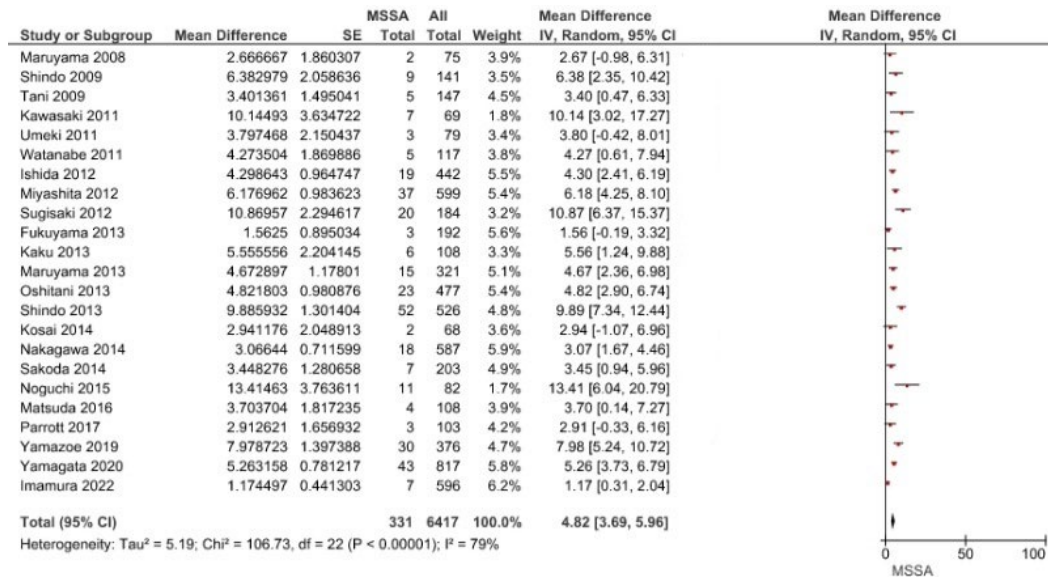
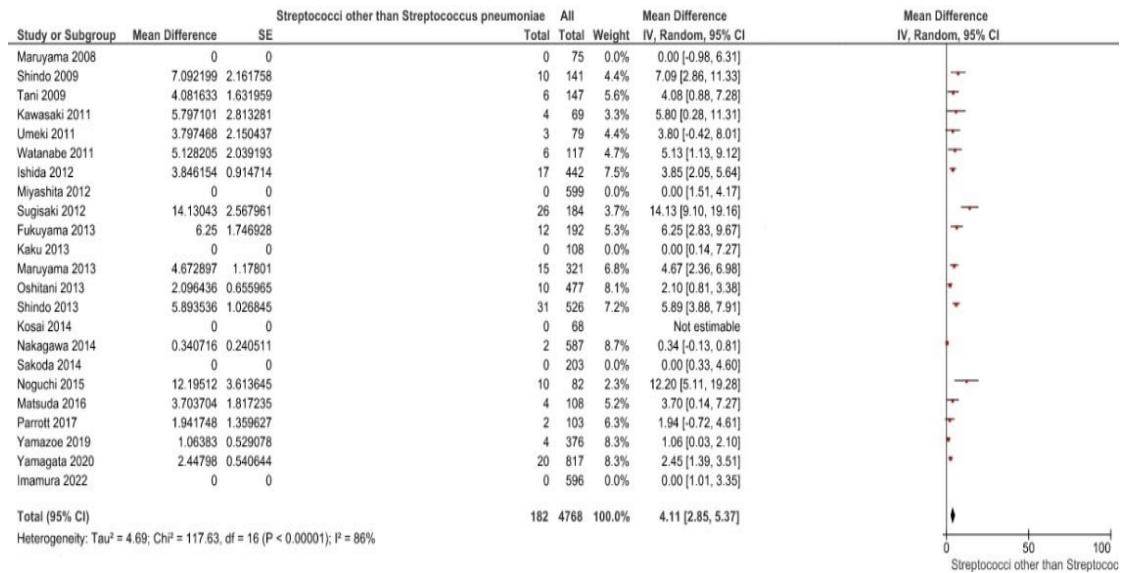


図 Suppl-6. MSSA.



☒ Suppl-7. *Streptococci* other than *Streptococcus pneumoniae*.



☒ Suppl-8. *Escherichia coli*.

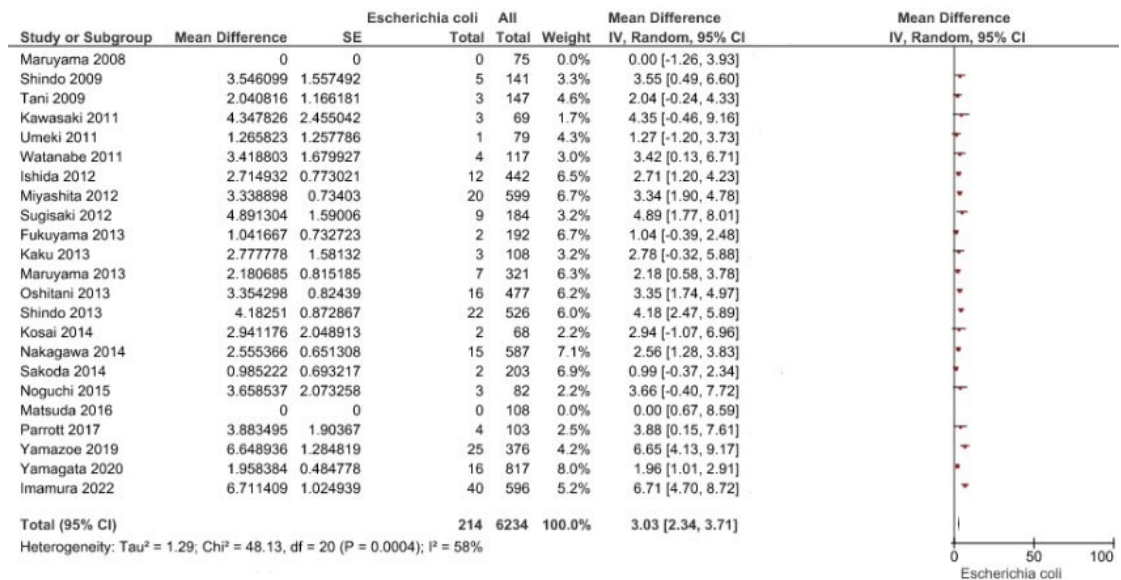


図 Suppl-9. *Chlamydomphila pneumoniae*.

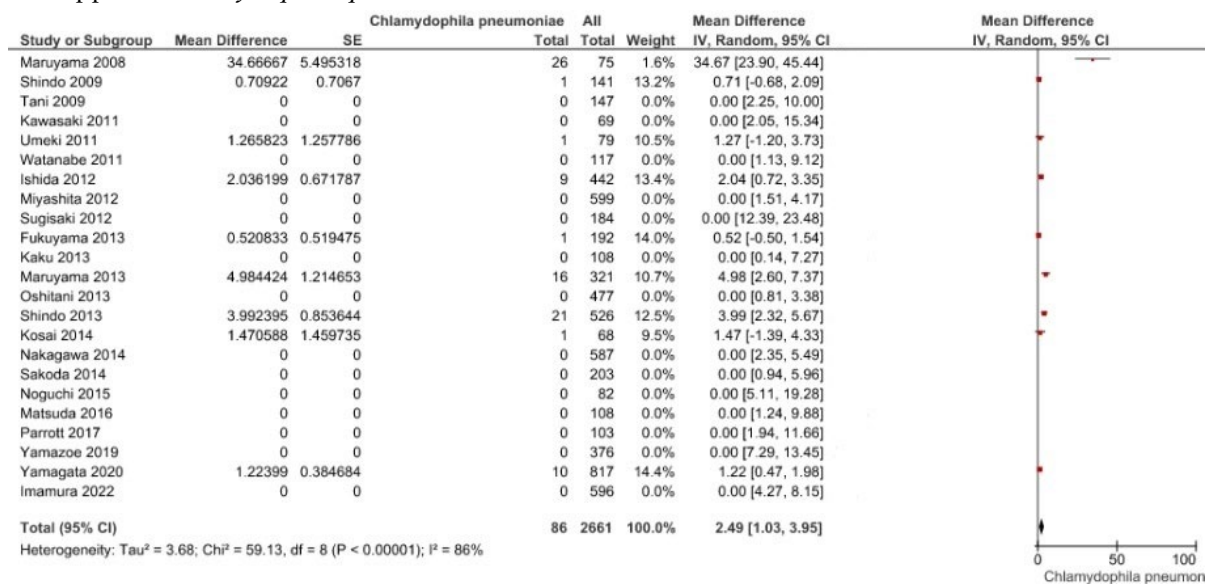
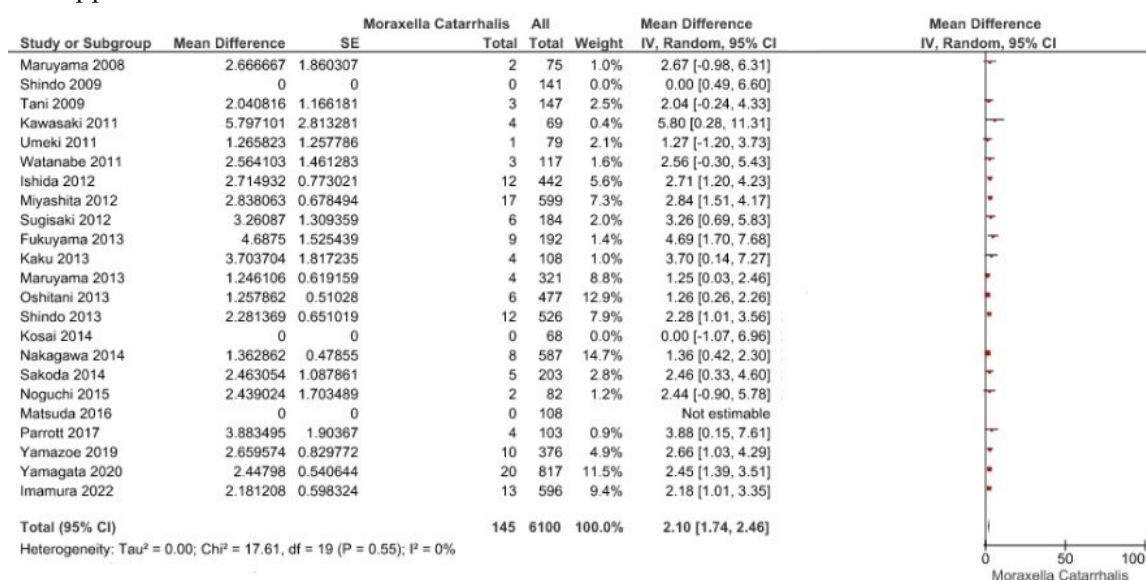


図 Suppl-10. *Moraxella catarrhalis*.



SR6 は Review Manager にて解析を行った。同ソフトの仕様により本来解析者の意図しない記載があるため留意されたい。

上段に[Mean Difference]の記載があるが、平均差ではなく起炎菌割合の解析を行っている。上段に[Total]の表示が重複しているが左列が当該菌種の検出人数、右列に観察者総数を記している。

SR 7

院内肺炎における原因微生物（日本）

図 Suppl-1. MRSA.

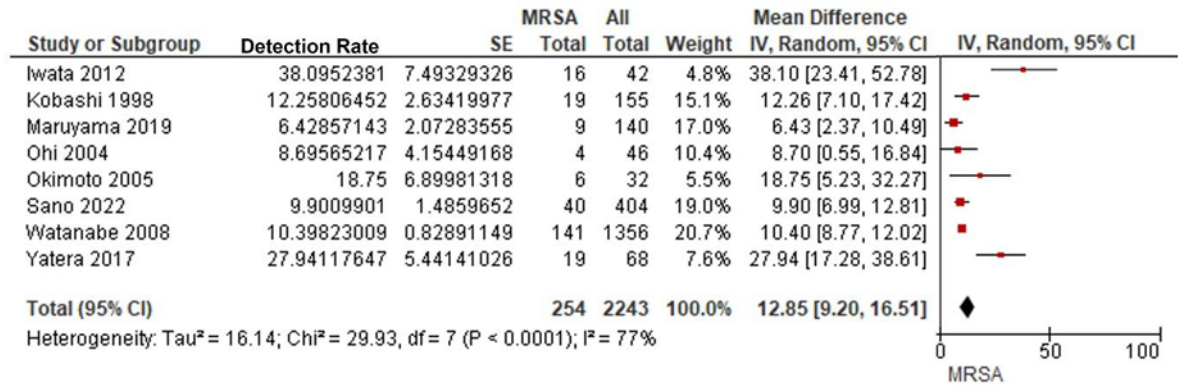


図 Suppl-2. *P. aeruginosa*.

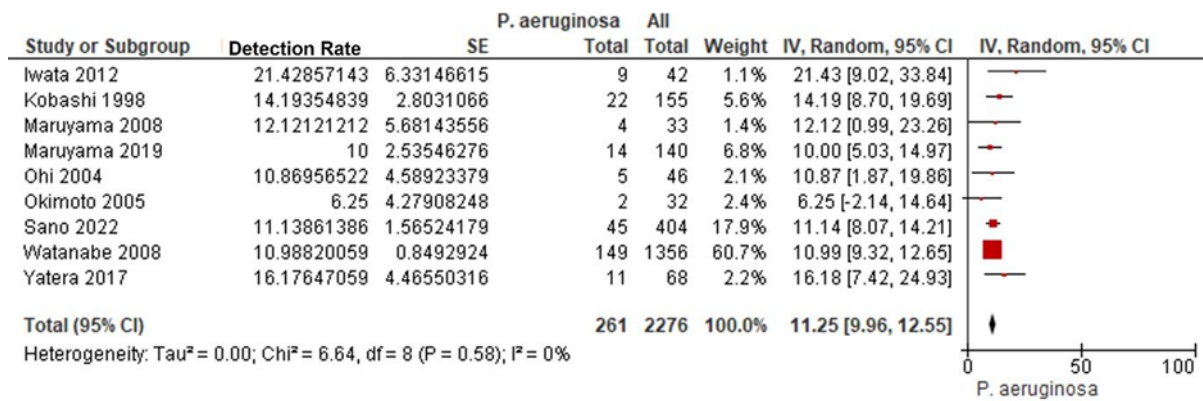


図 Suppl-3. MSSA.

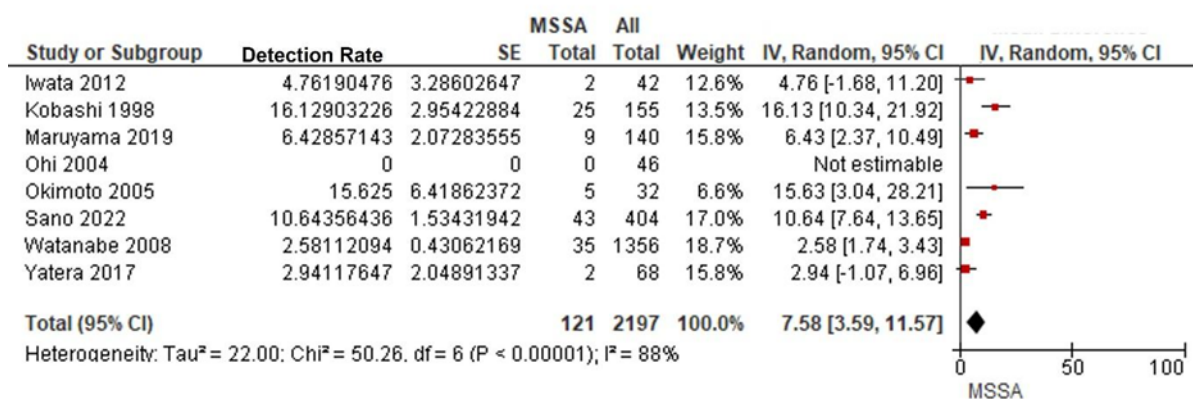


図 Suppl-4. *K. pneumoniae*.

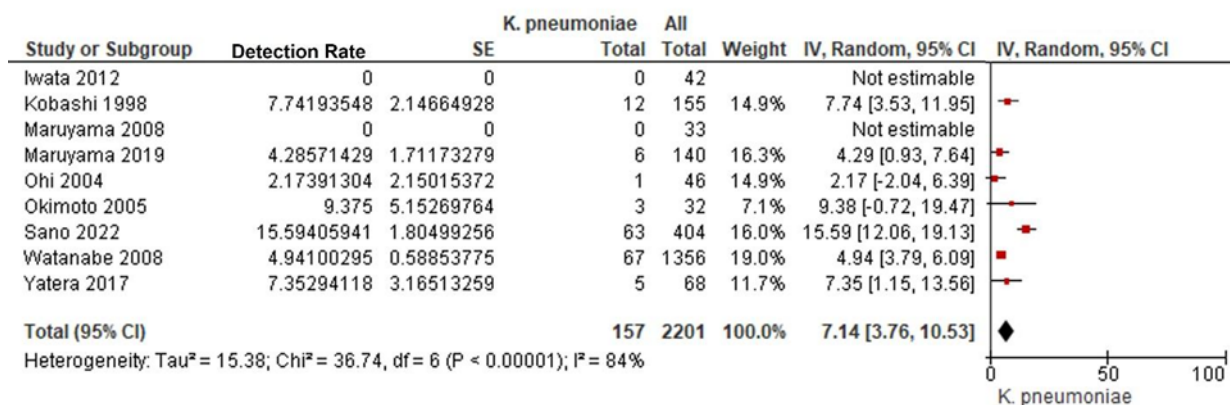


図 Suppl-5. *Enterobacter* sp.

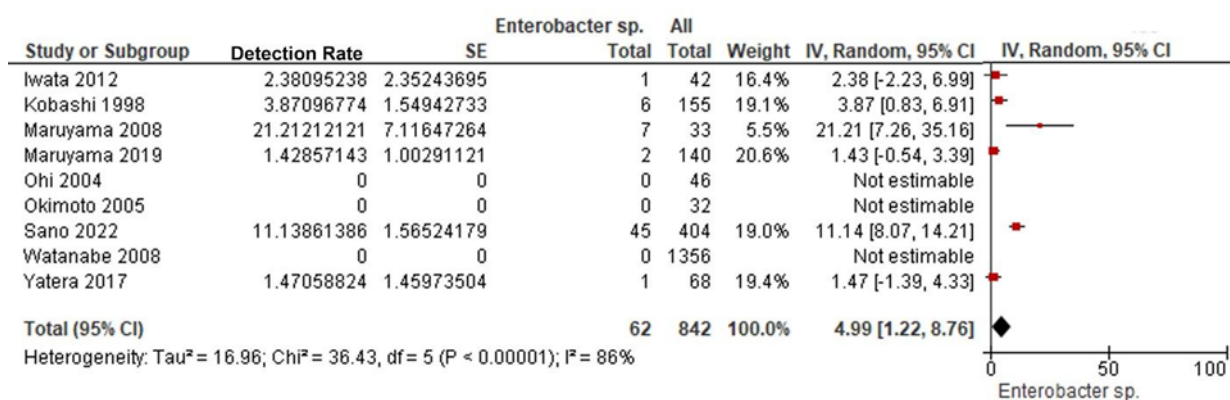


図 Suppl-6. *S. maltophilia*.

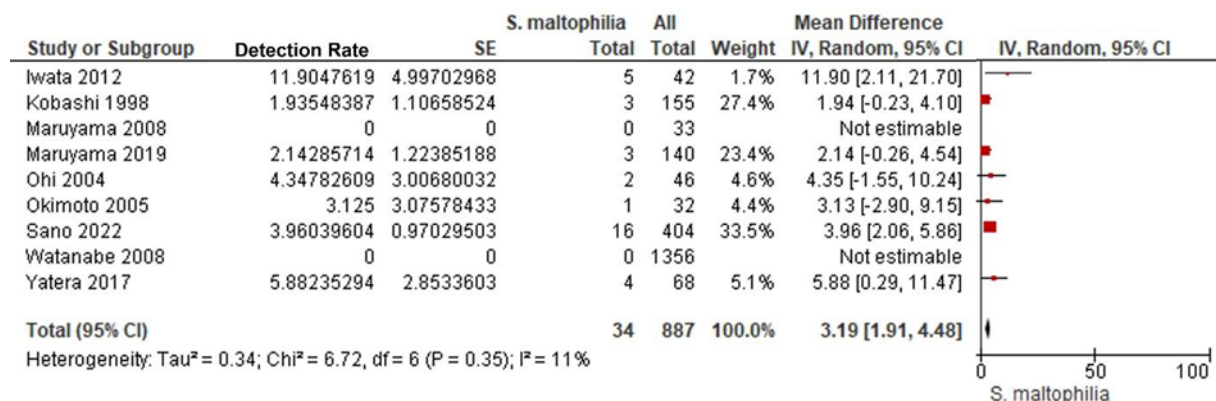


図 Suppl-7. *S. pneumoniae*.

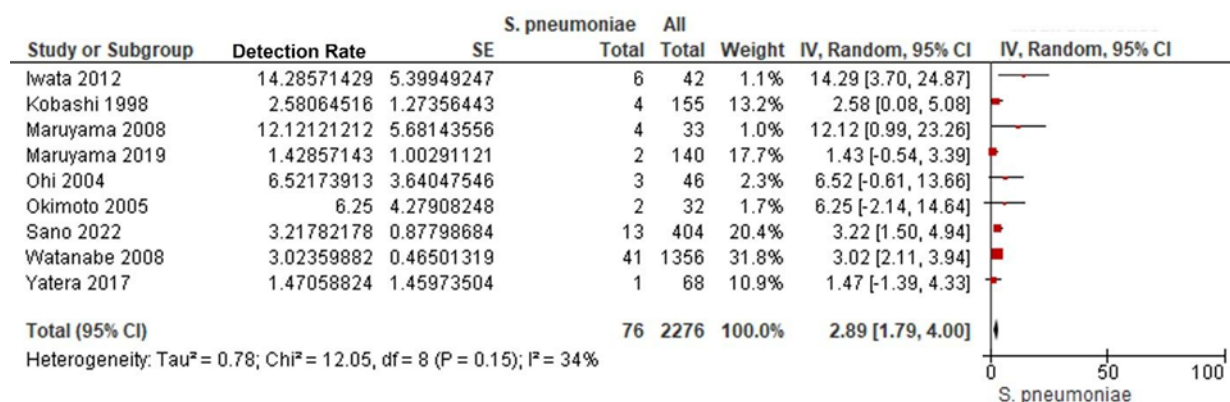


図 Suppl-8. *Acinetobacter sp.*

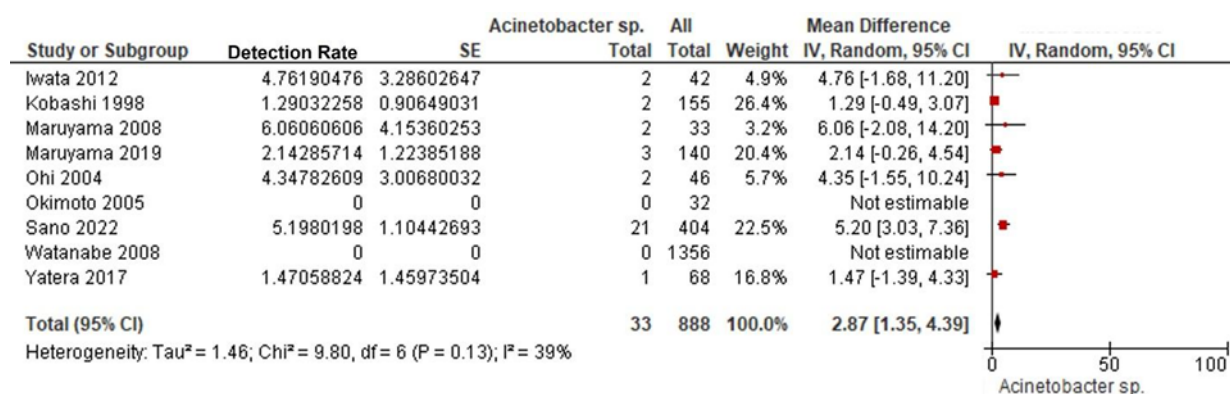


図 Suppl-9. *S. marcescens*.

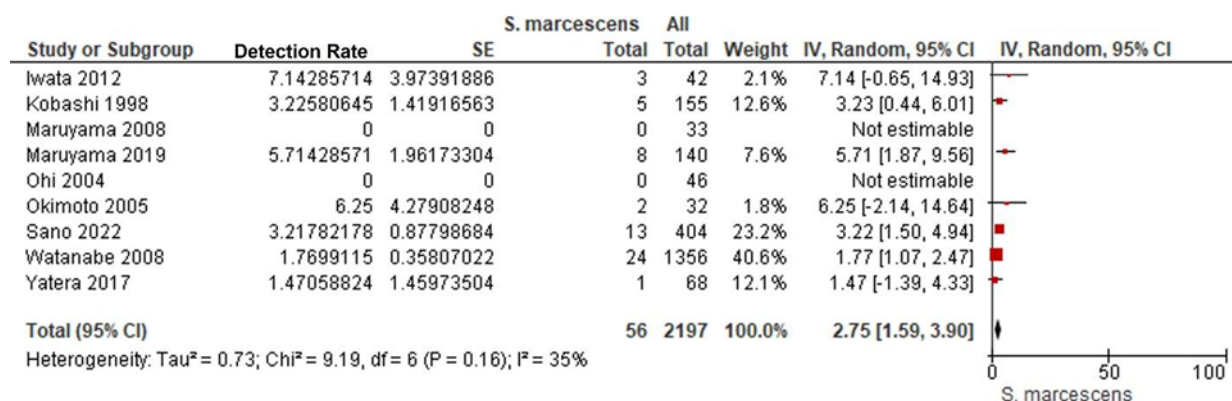
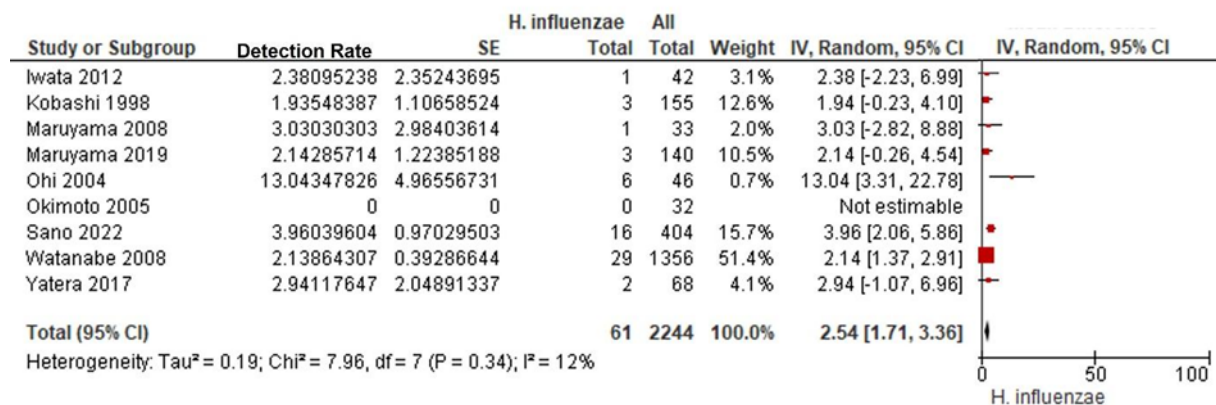


図 Suppl-10. *H. influenzae*.



SR10

HAP+VAP における耐性菌のリスク因子は何か？

図 Suppl-1. ICU での発症 培養陽性（耐性菌全体）.

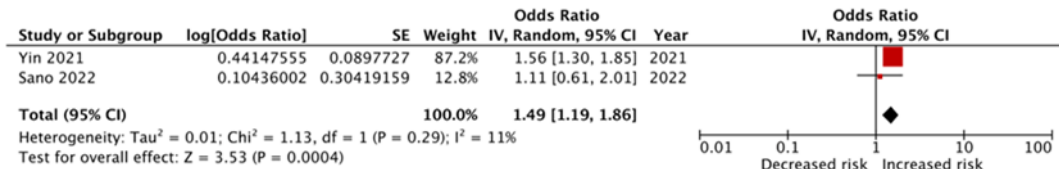


図 Suppl-2. ICU での発症 培養陽性（MDR）.

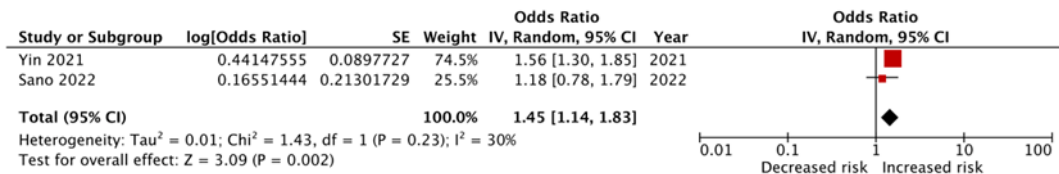


図 Suppl-3. ICU での発症 臨床診断（耐性菌全体）.

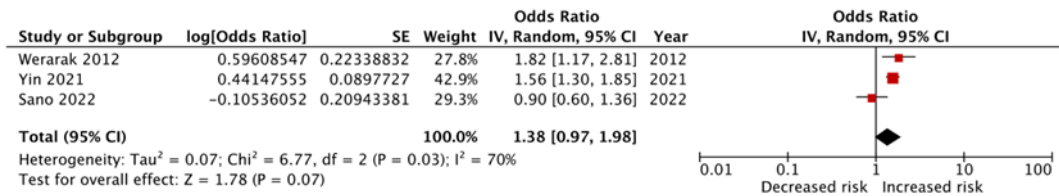




図 Suppl-4. 敗血症/敗血症性ショック 培養陽性（耐性菌全体）.

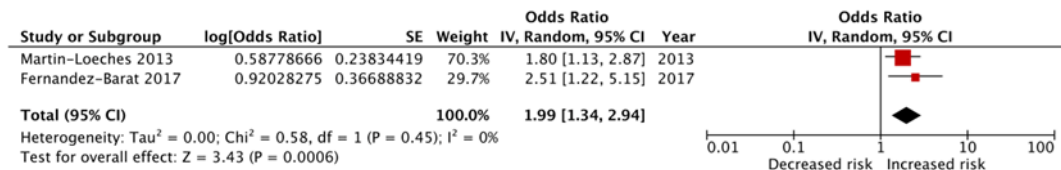


図 Suppl-5. 最近の抗菌薬使用歴 培養陽性（耐性菌全体）.

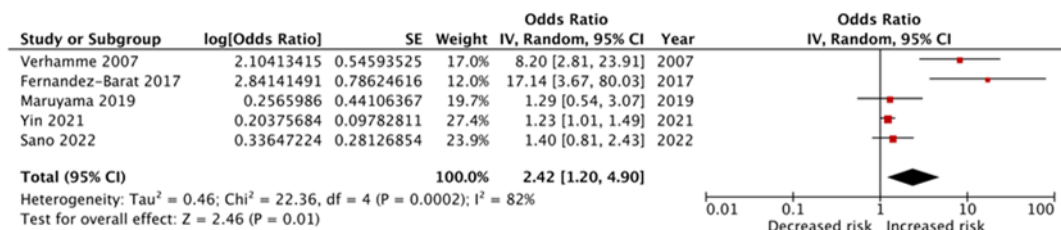


図 Suppl-6. 最近の抗菌薬使用歴 培養陽性（MRSA）.

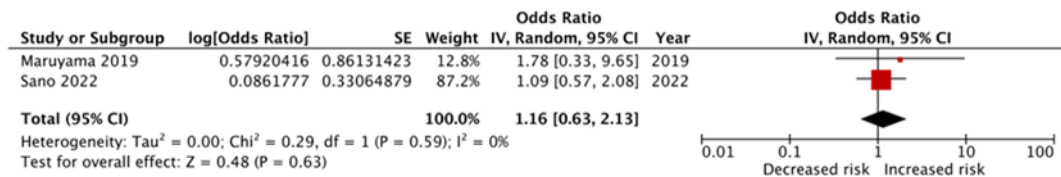


図 Suppl-7. 最近の抗菌薬使用歴 培養陽性（MDR）.

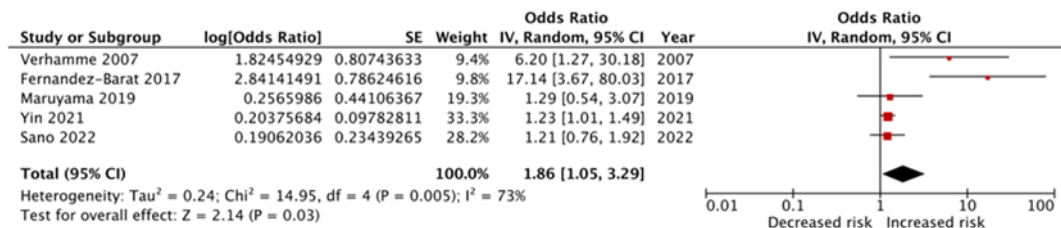


図 Suppl-8. 最近の抗菌薬使用歴 臨床診断（耐性菌全体）.

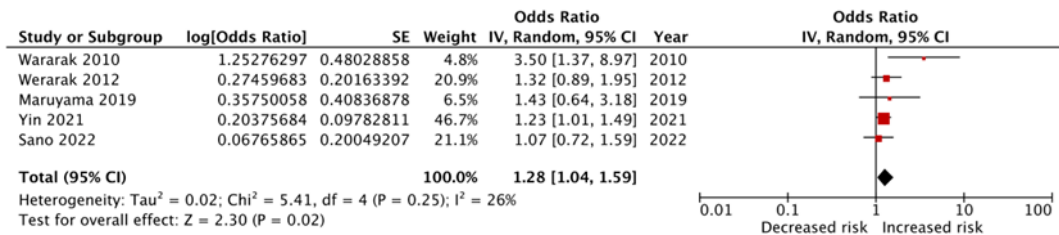


図 Suppl-9. 活動性の低下、歩行困難 培養陽性（耐性菌全体）.

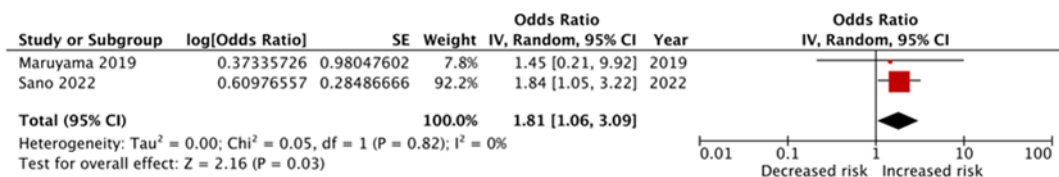


図 Suppl-10. 活動性の低下、歩行困難 培養陽性（MDR）.

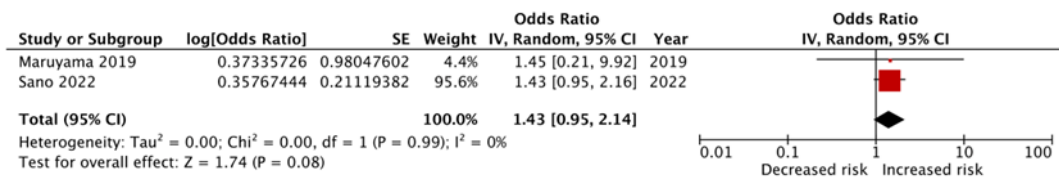


図 Suppl-11. 活動性の低下、歩行困難 臨床診断（耐性菌全体）.

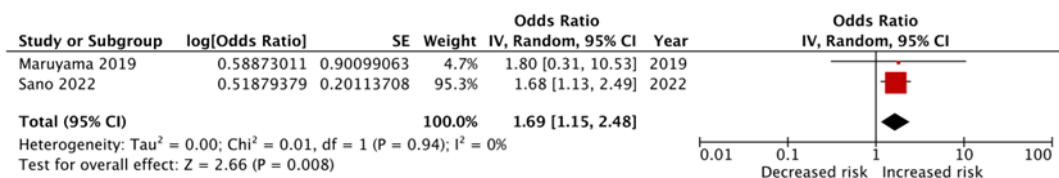


図 Suppl-12. 慢性腎疾患（透析を含む） 培養陽性（耐性菌全体）.

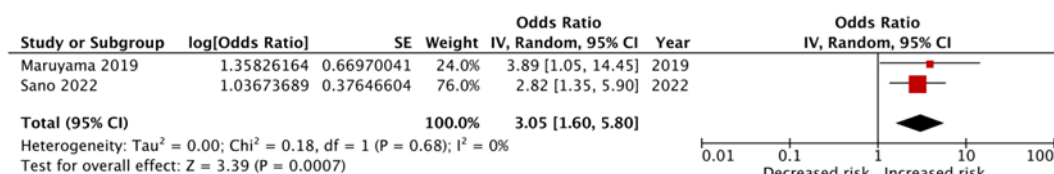


図 Suppl-13. 慢性腎疾患（透析を含む） 培養陽性（MRSA）.

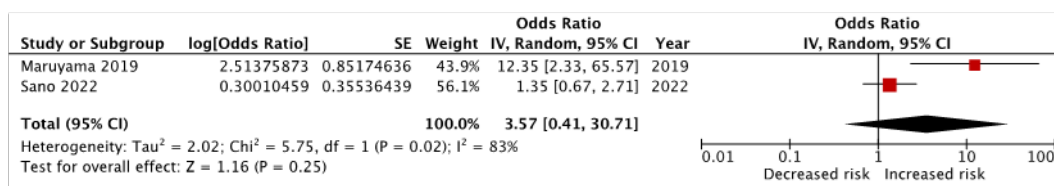


図 Suppl-14. 慢性腎疾患（透析を含む） 培養陽性（MDR）.

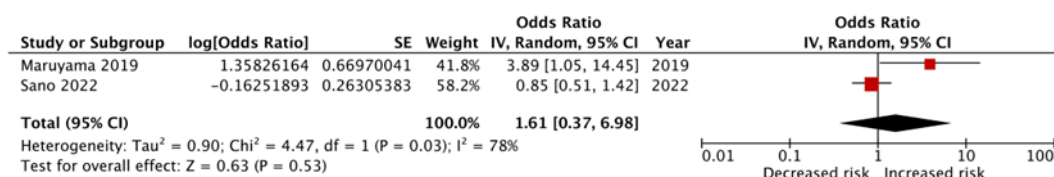
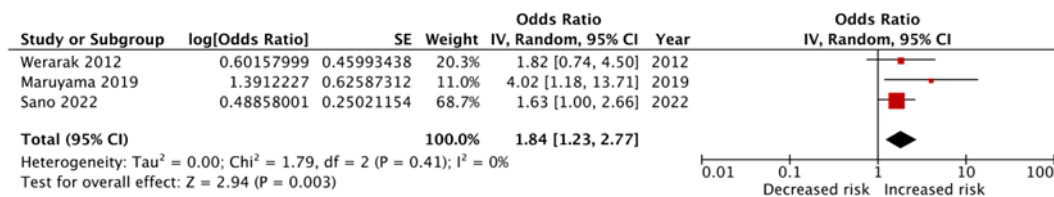


図 Suppl-15. 慢性腎疾患（透析を含む） 臨床診断（耐性菌全体）.



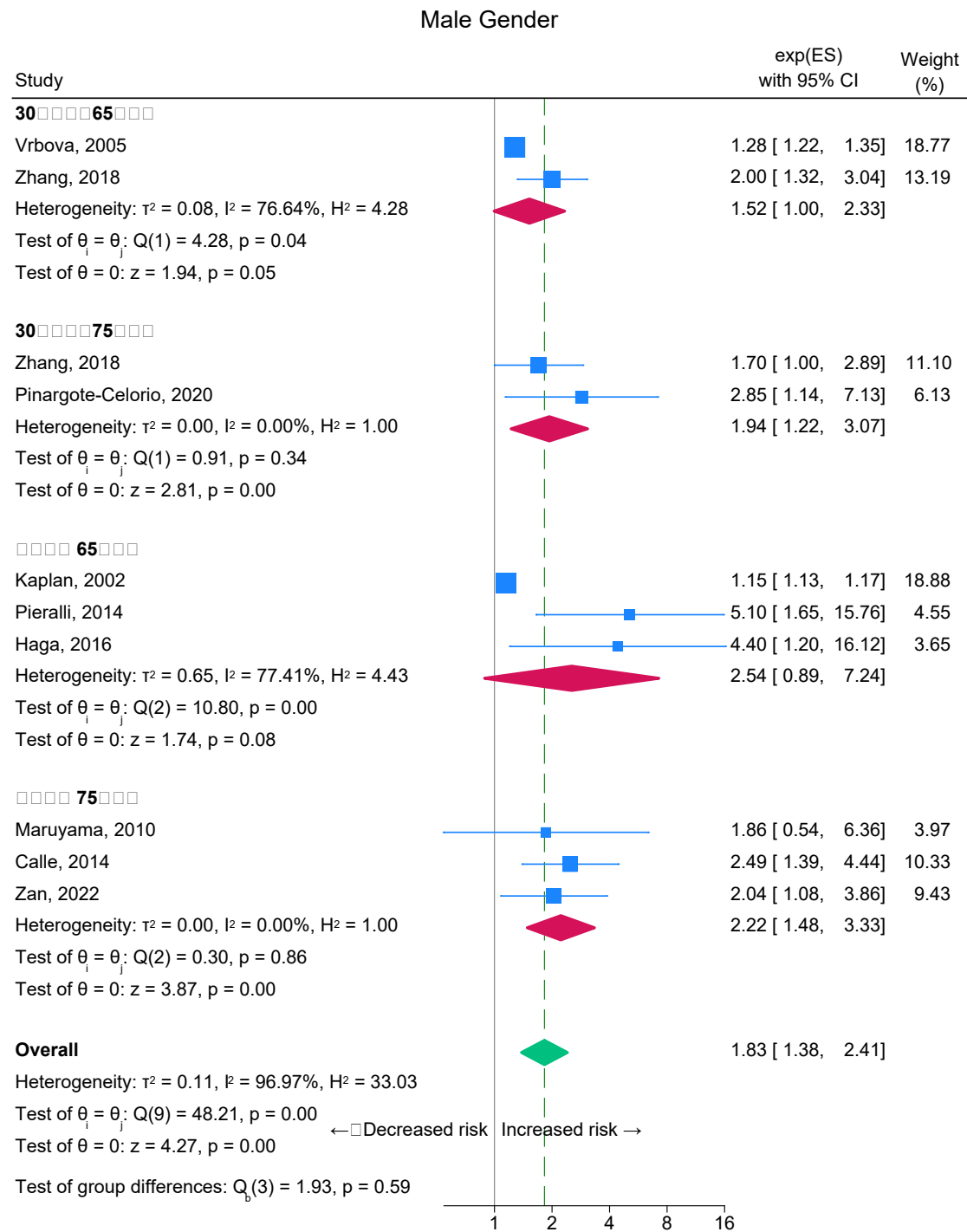
SR13 入院を要する高齢者市中肺炎（重症例を除く）の予後因子は何か？

**SR13**

入院を要する高齢者市中肺炎（重症例を除く）の予後因子は何か？



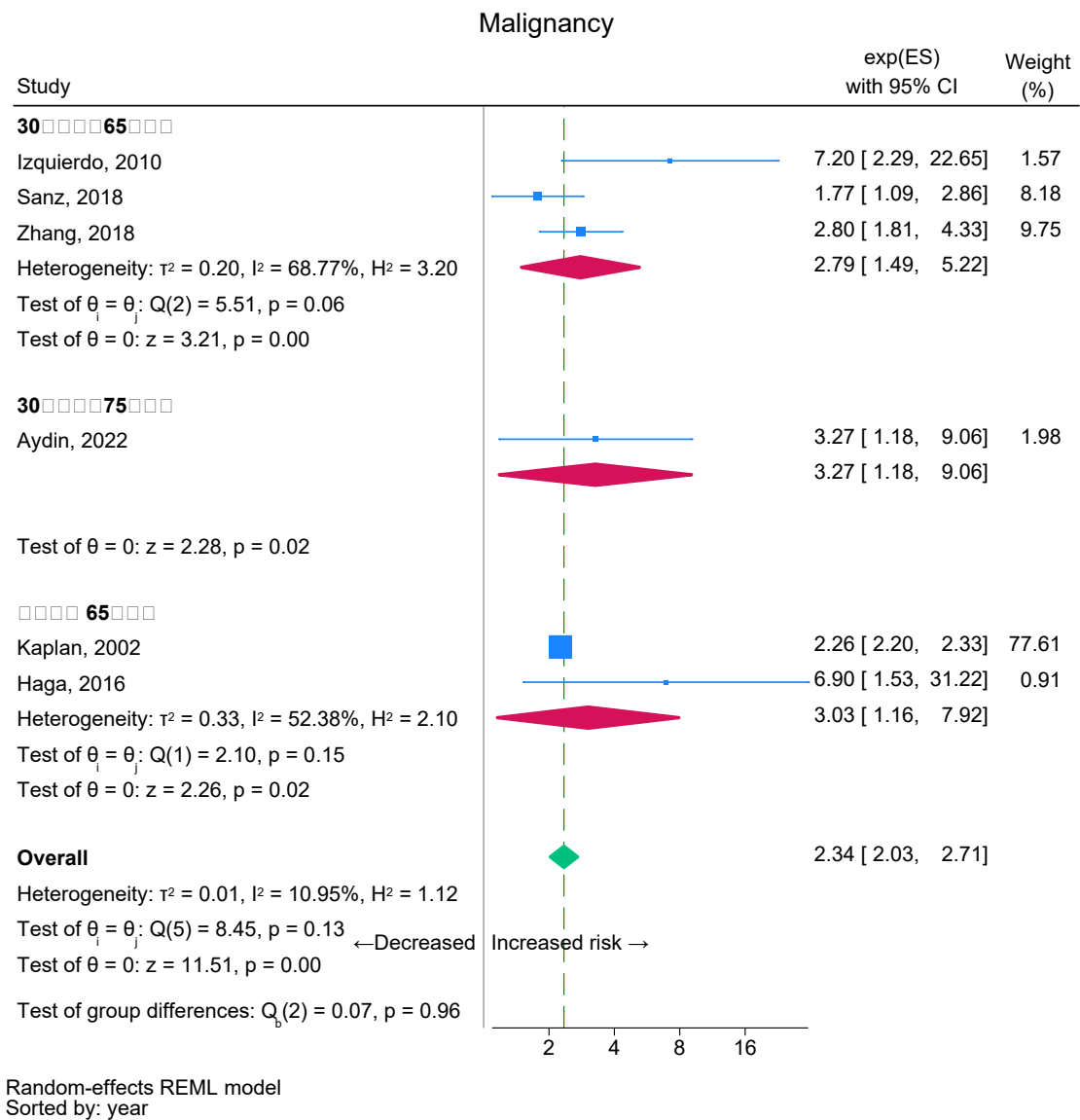
図 Suppl-1-2. (Demographic) Male gender.



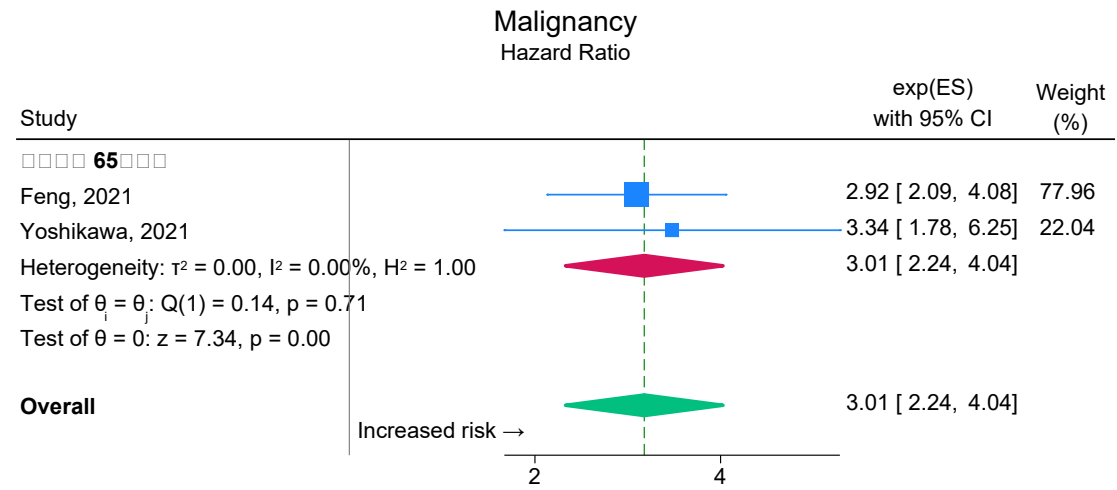
Random-effects REML model  
Sorted by: year



図 Suppl2-1. (Comorbidity) Malignancy.

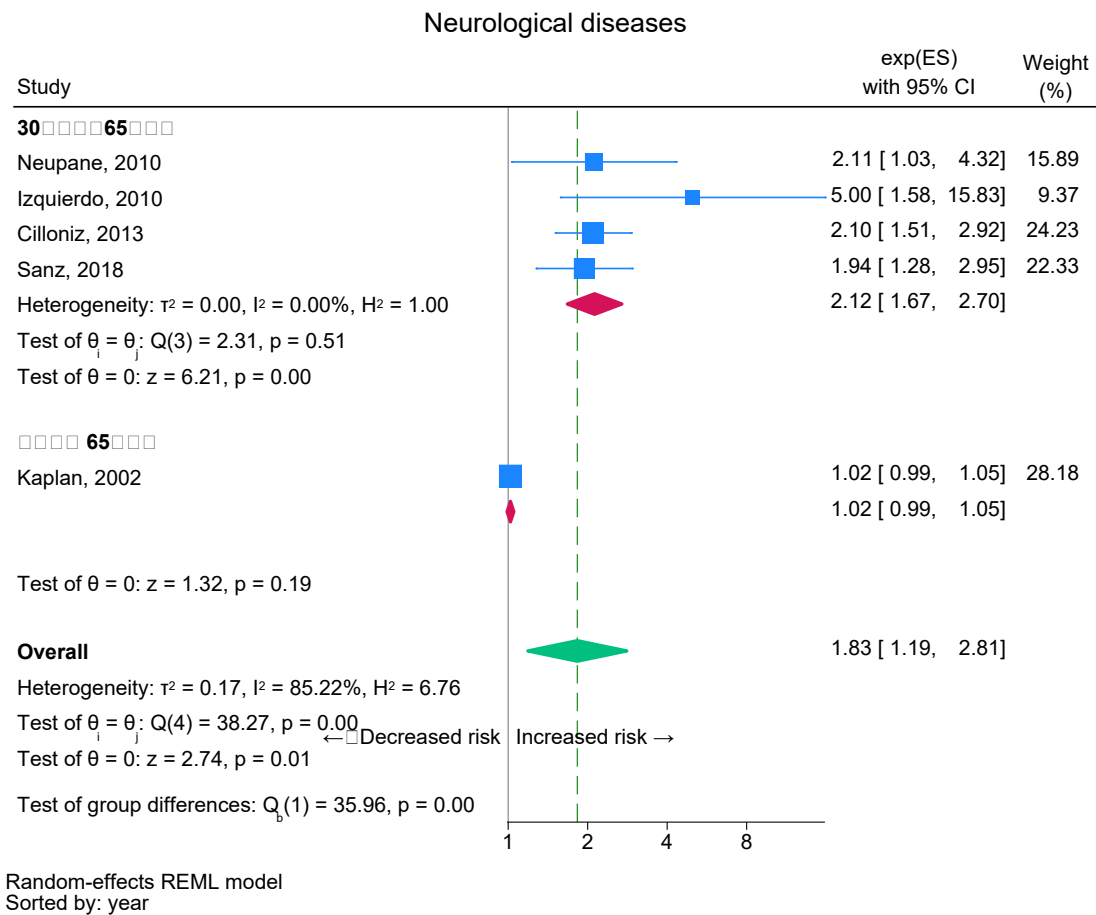






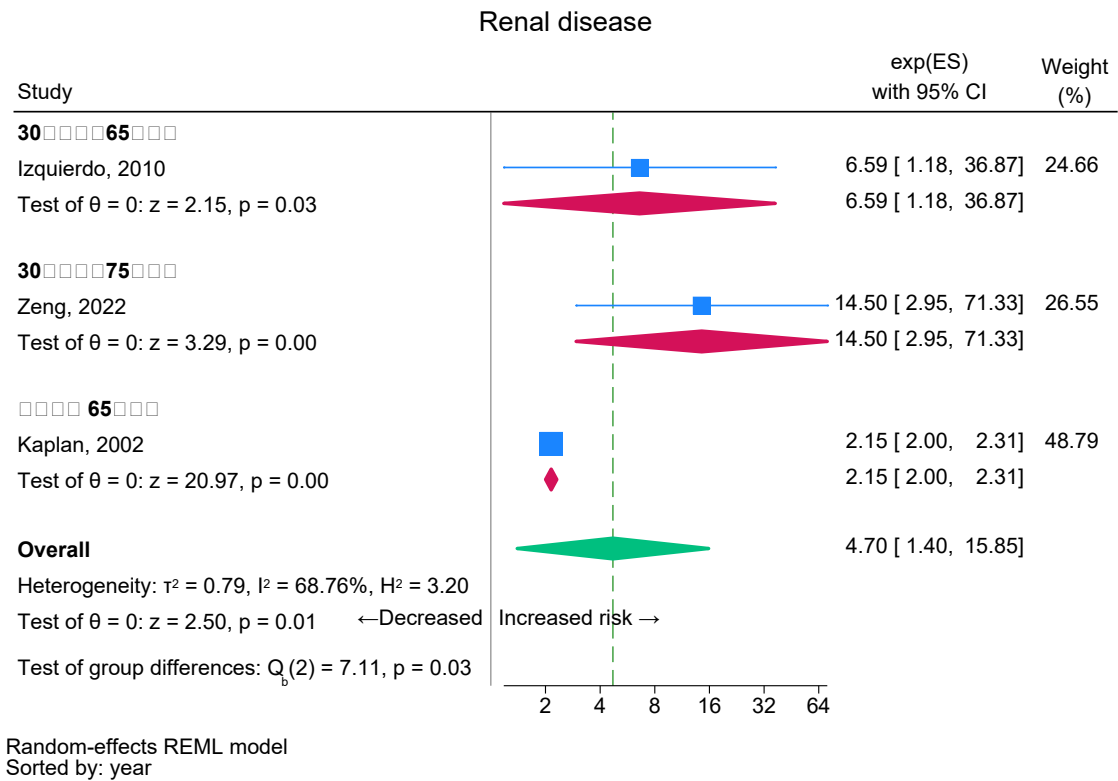
Random-effects REML model  
Sorted by: year

図 Suppl2-2. (Comorbidity) Neurological disease.



Dementia, Cerebrovascular disease を含んだ Neurological diseases で解析した。

☒ Suppl2-3. (Comorbidity) Renal disease.



☒ Suppl2-4. (Comorbidity) COPD.

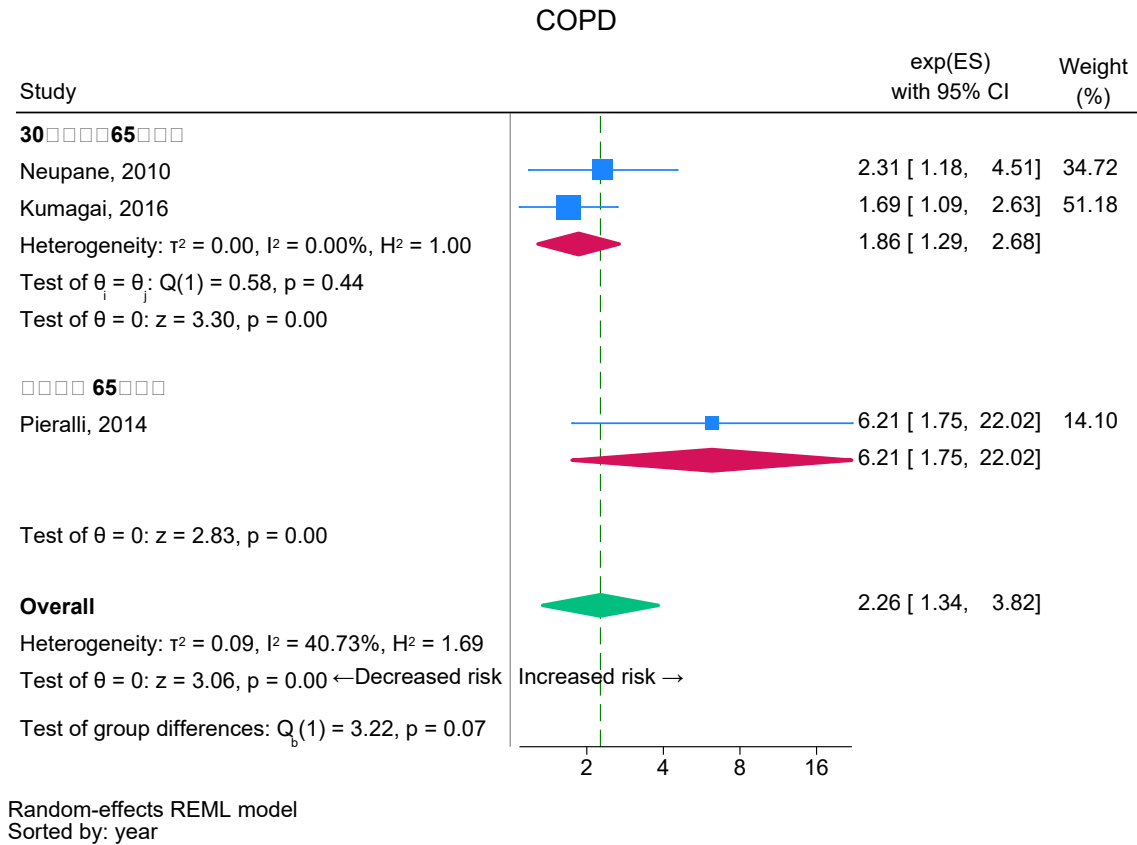


図 Suppl2-5. (Comorbidity) Heart disease.

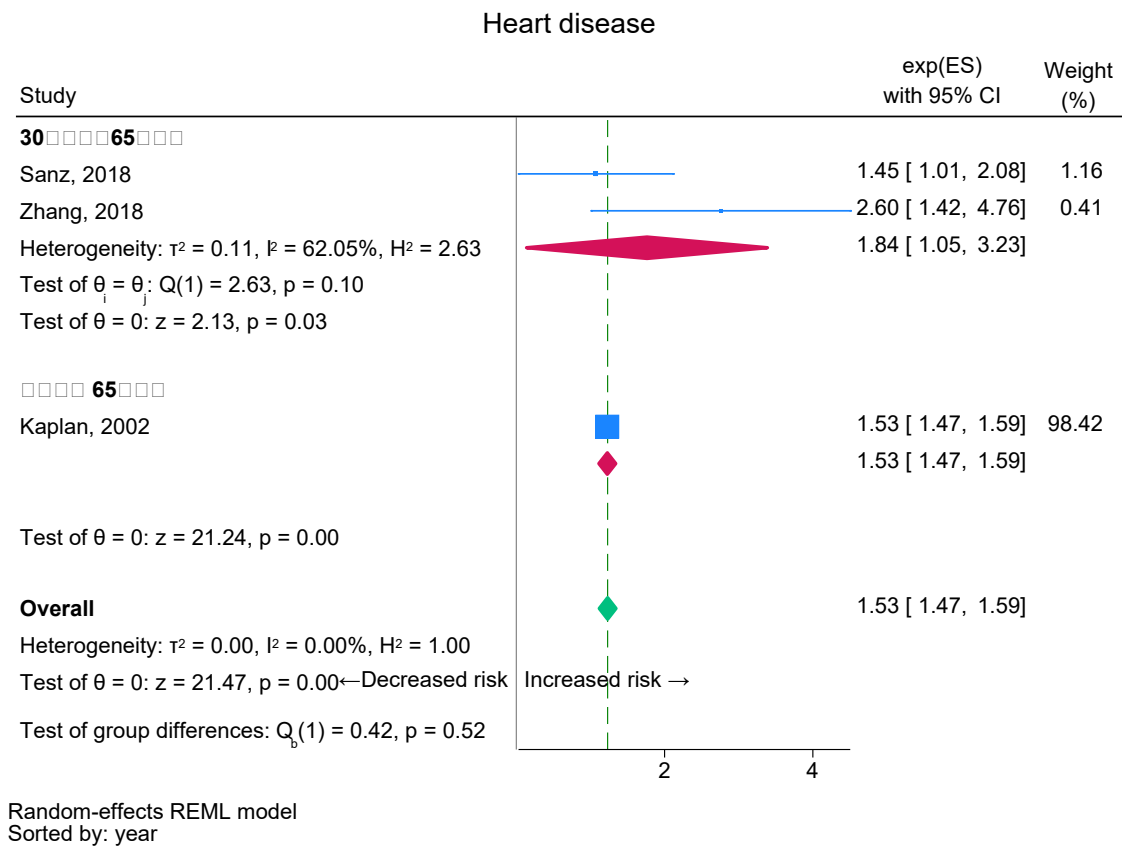
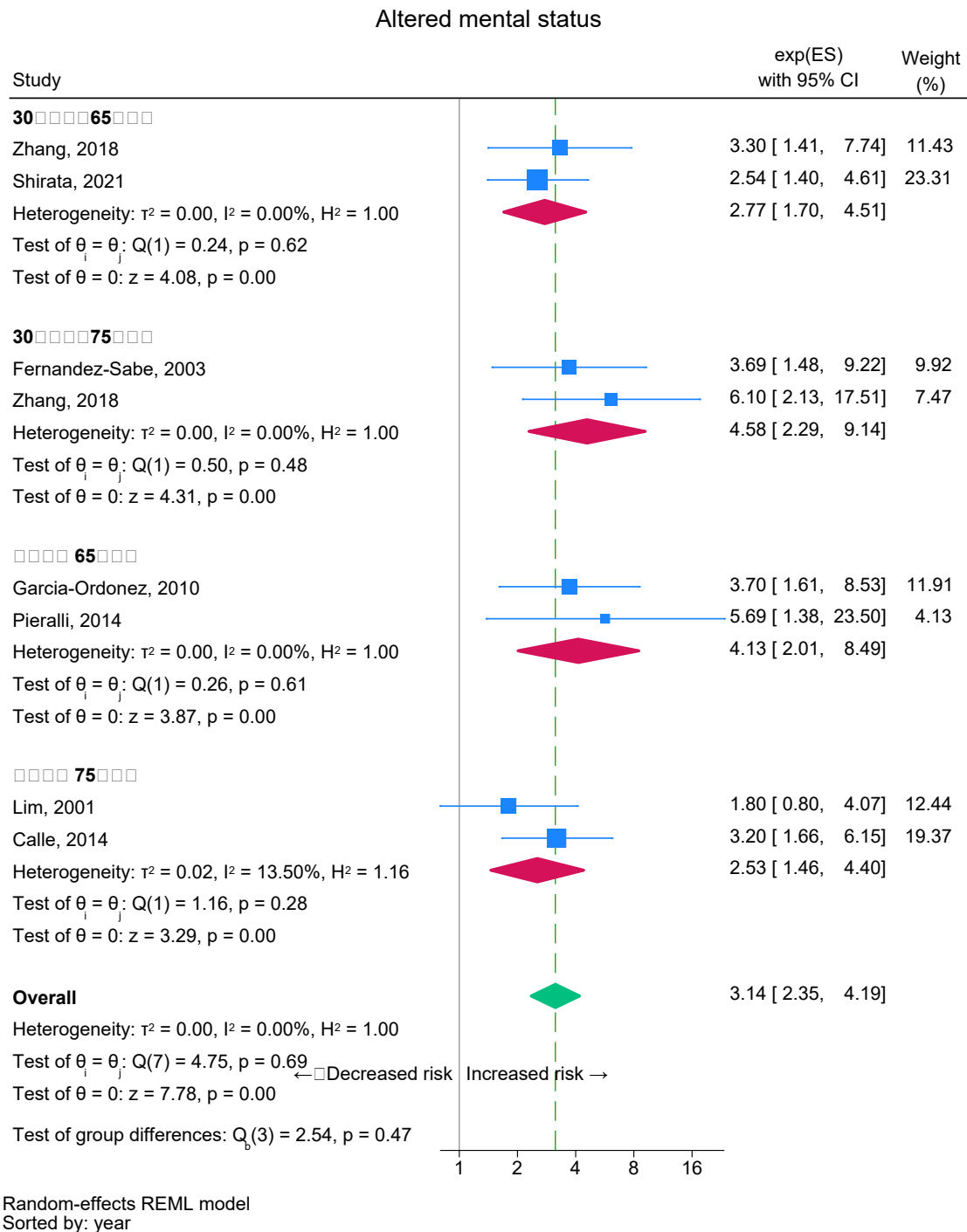


図 Suppl3-1. (Severity/clinical condition) Altered mental status/confusion/delirium.



Note: #22 Zhang, et al.'s study reported 65-84 year-old and  $\geq 85$  year-old groups separately.

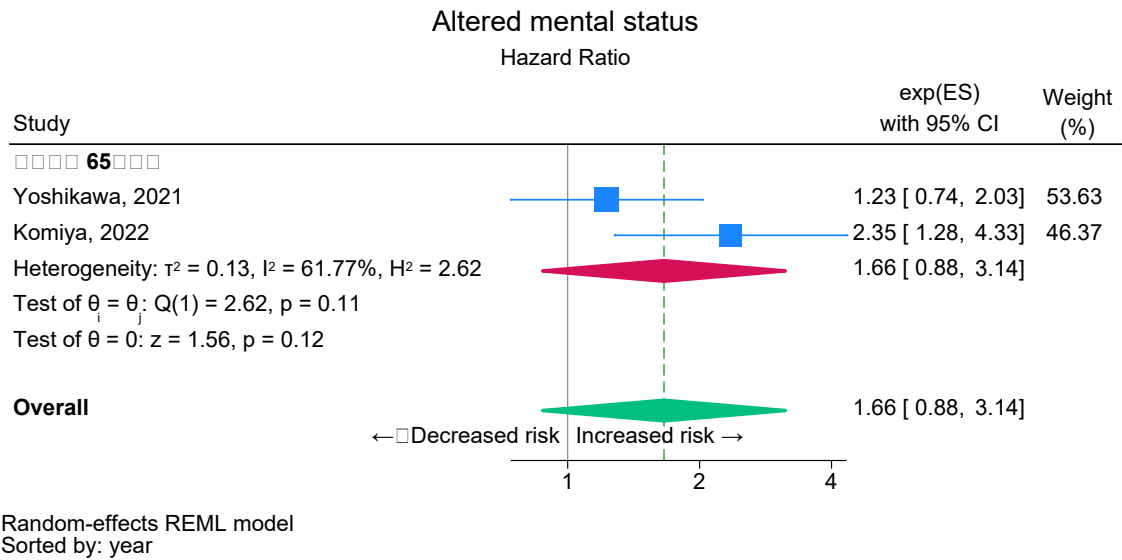


図 Suppl3-2. (Severity/clinical condition) Hyperazotemia.

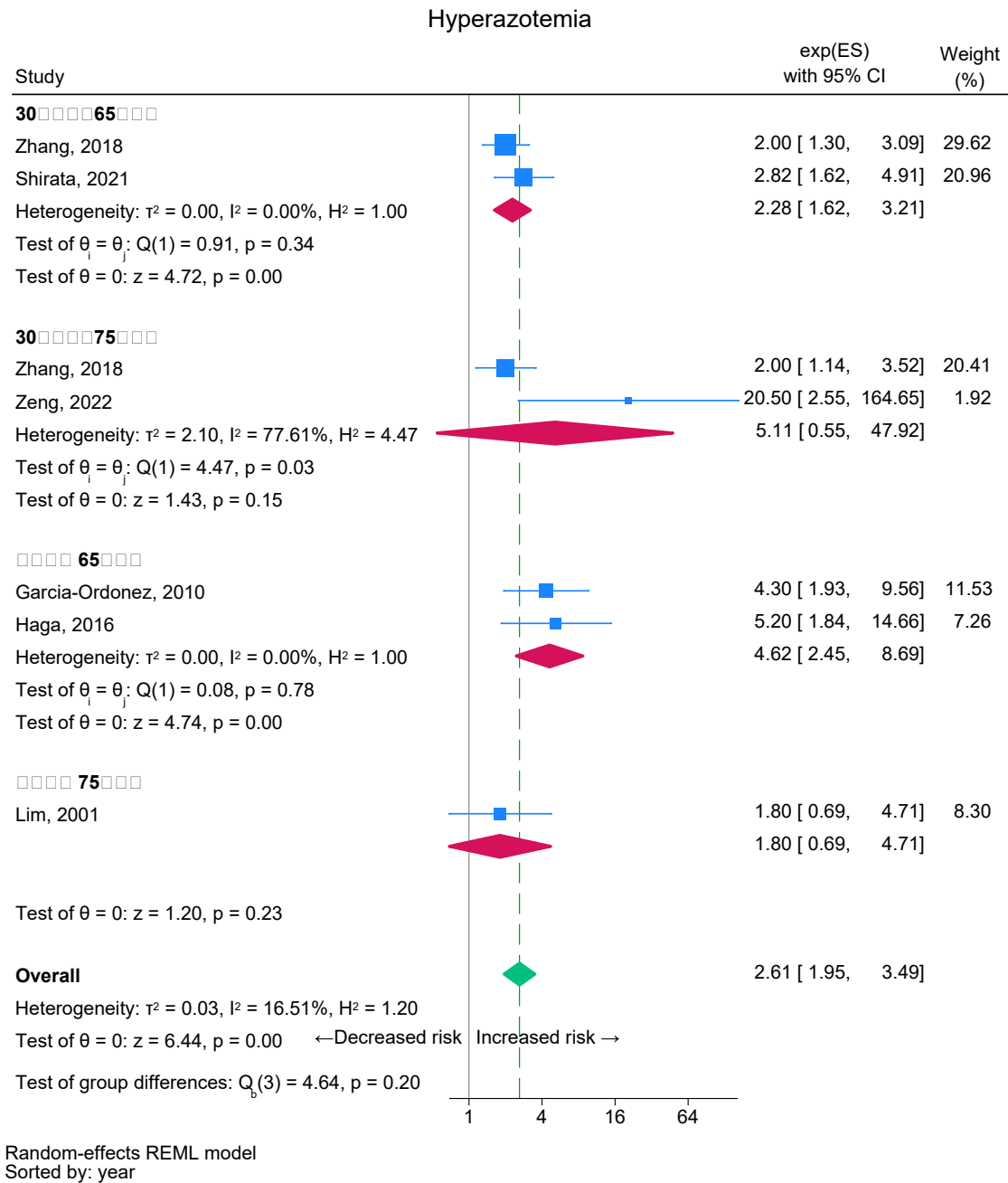




図 Suppl3-3. (Severity/clinical condition) 1-mg/dL increase of BUN.

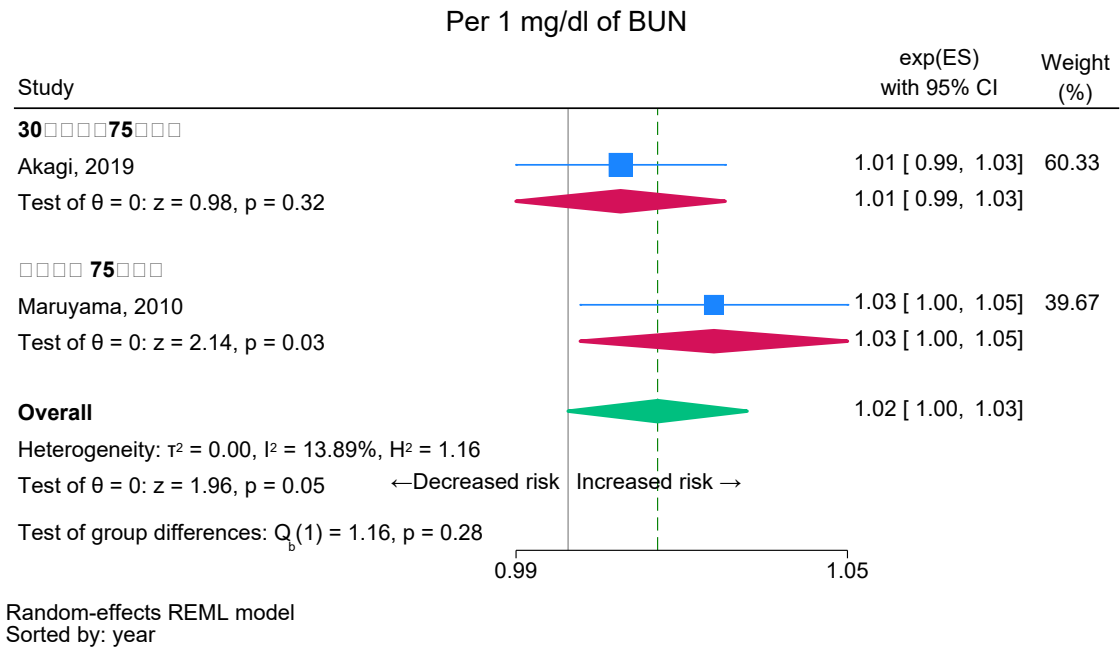


図 Suppl3-4. (Severity/clinical condition) Multiple lobe involvement/bilateral infiltration.

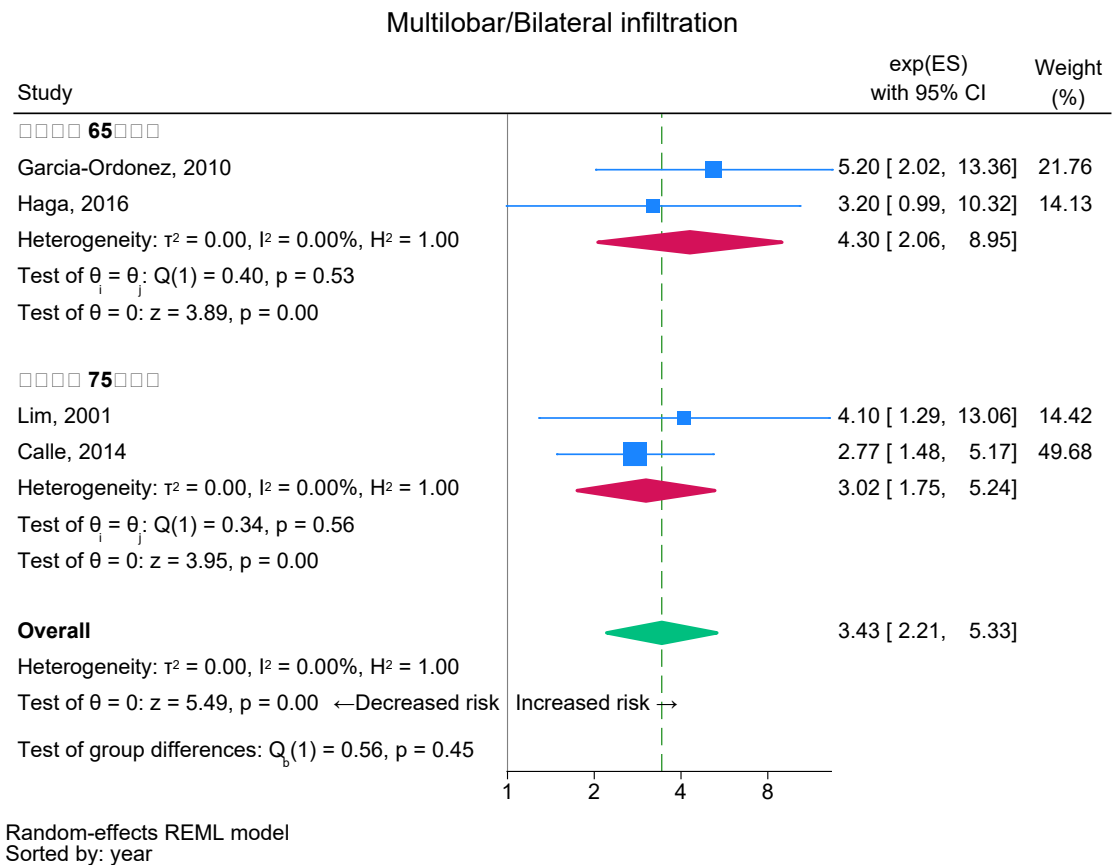


図 Suppl3-5. (Severity/clinical condition) Pleural effusion.

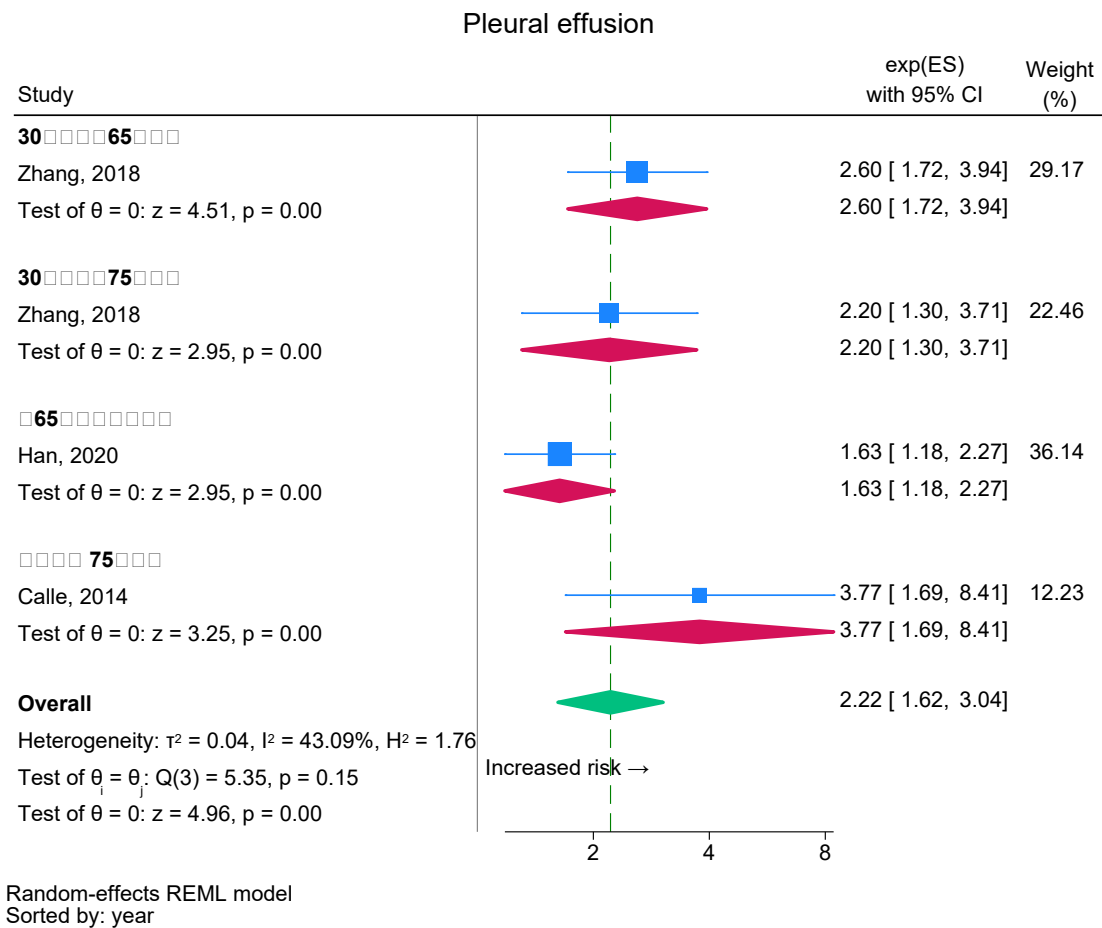


図 Suppl3-6. (Severity/clinical condition) Hypoxemia.

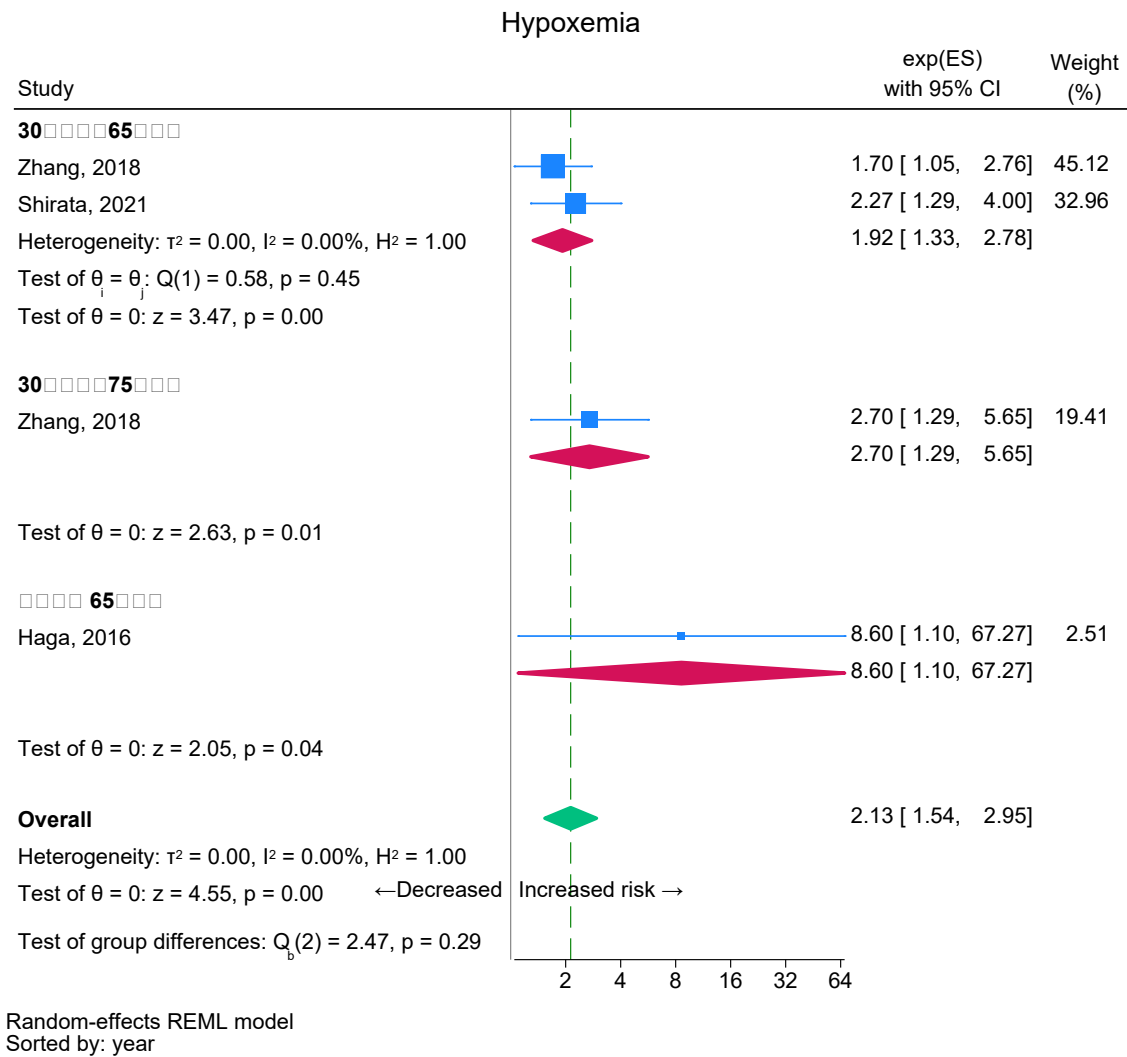


図 Suppl3-7. (Severity/clinical condition) PSI V or IV-V.

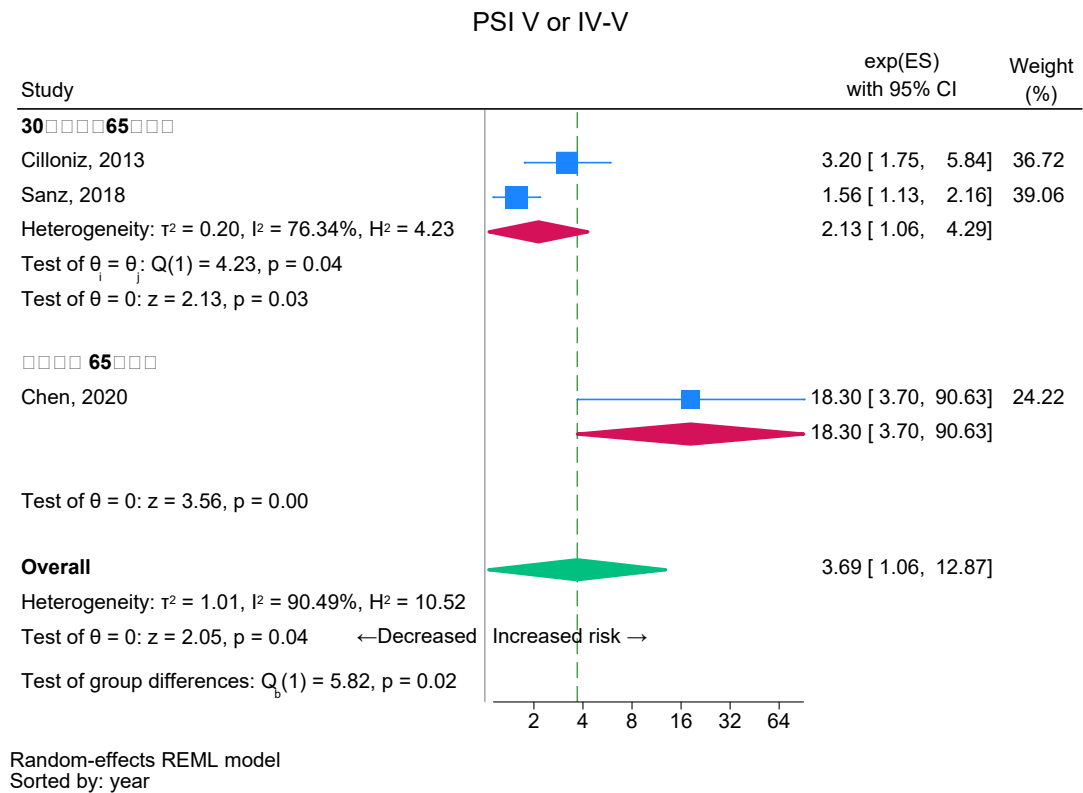


図 Suppl3-8. (Severity/clinical condition) Tachycardia.

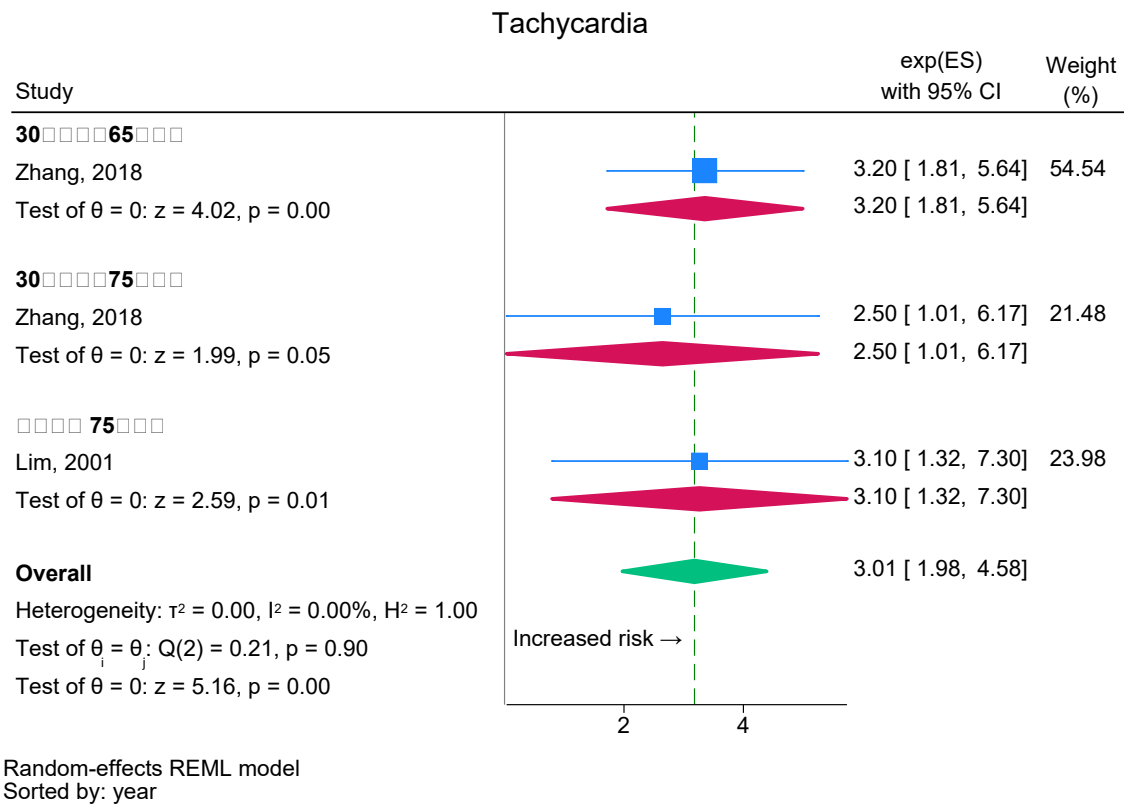


図 Suppl3-9. (Severity/clinical condition) Hypotension/shock.

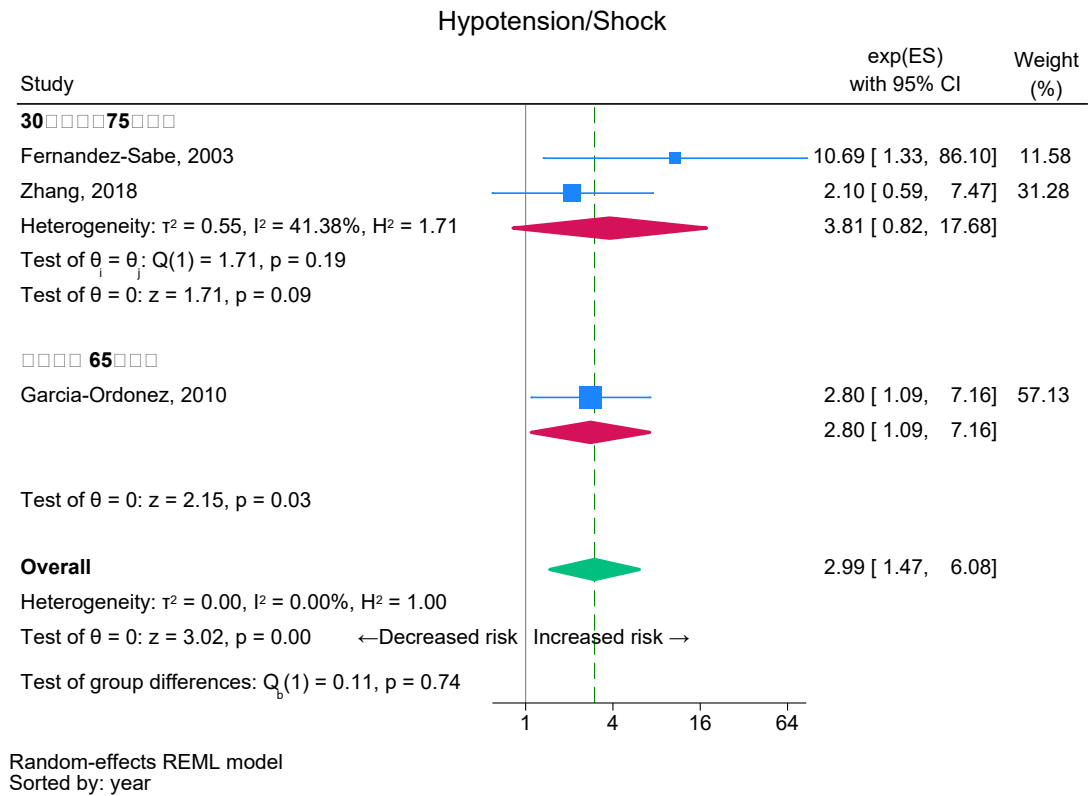


図 Suppl3-10. (Severity/clinical condition) 1-point increase of CURB-65.

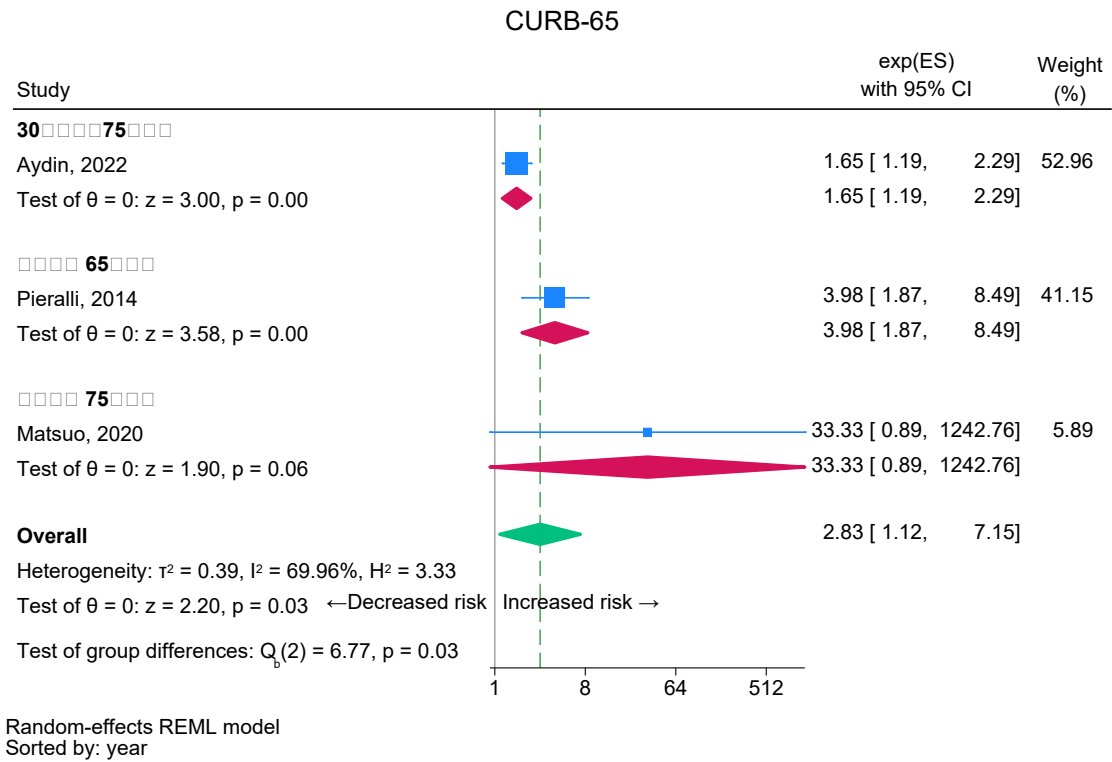




図 Suppl3-11. (Severity/clinical condition) Tachypnea.

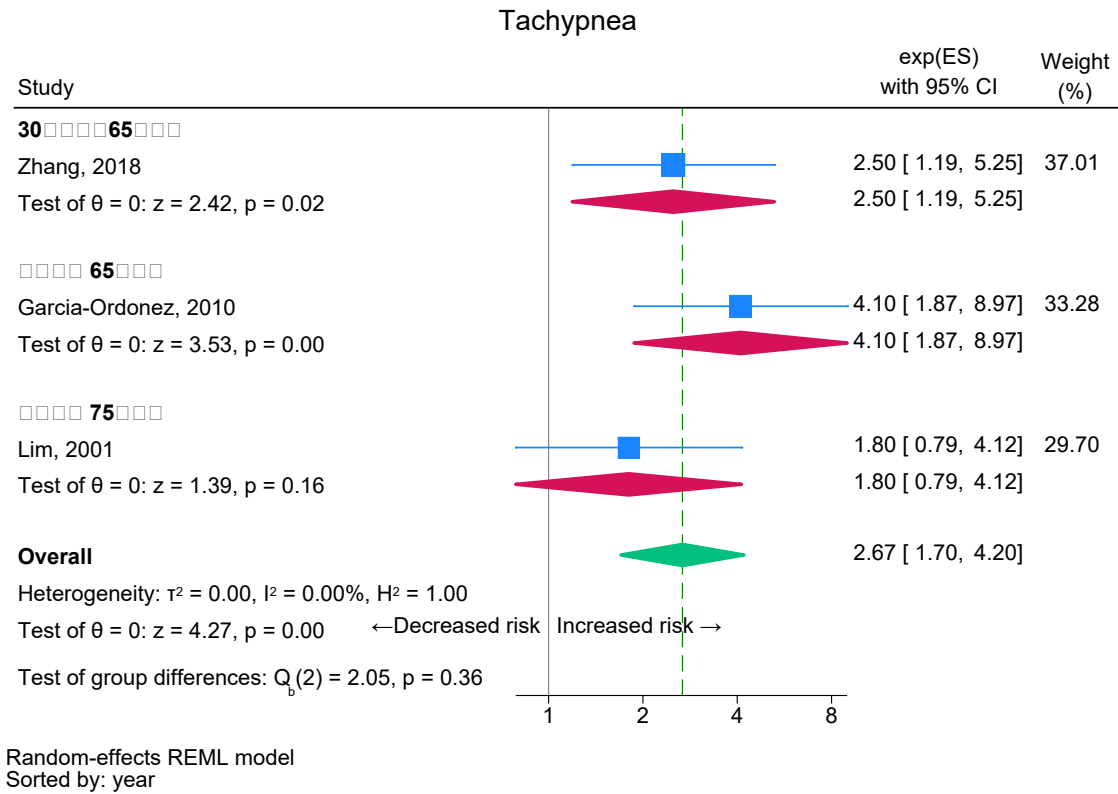


図 Suppl3-12. (Severity/clinical condition) Bacteremia/sepsis.

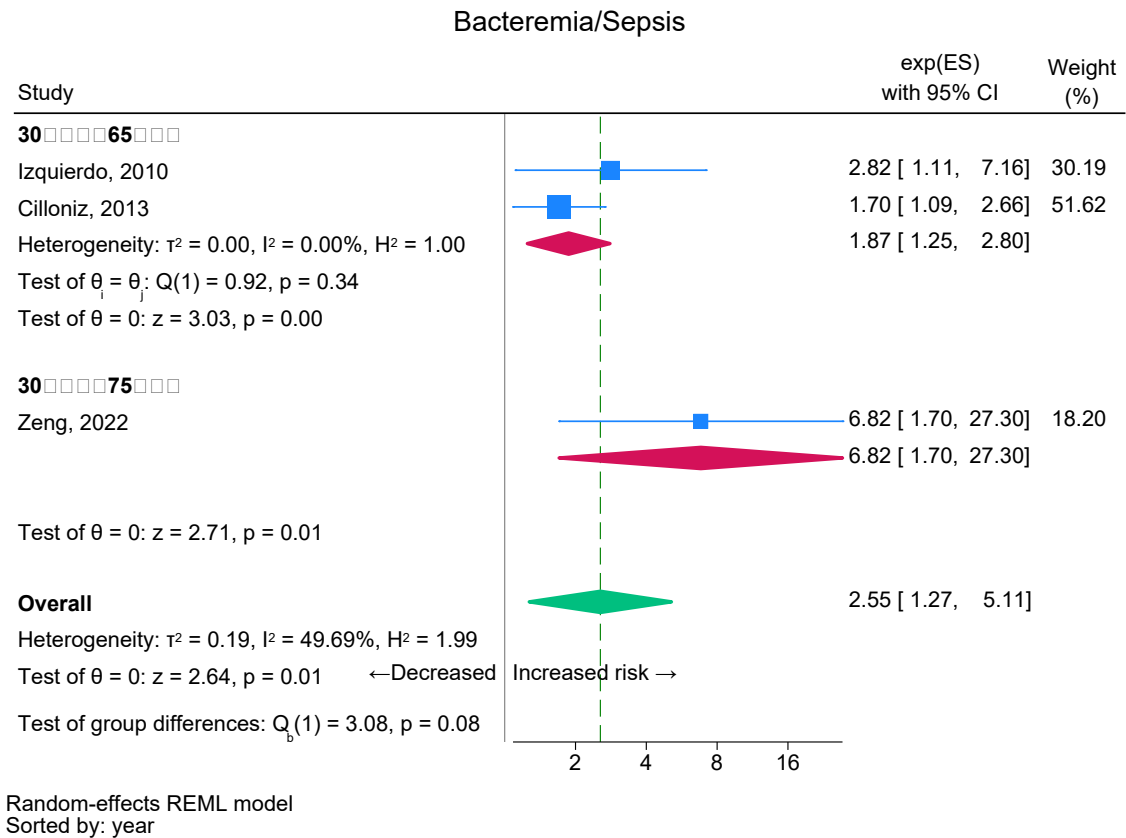


図 Suppl3-13. (Severity/clinical condition) Renal dysfunction.

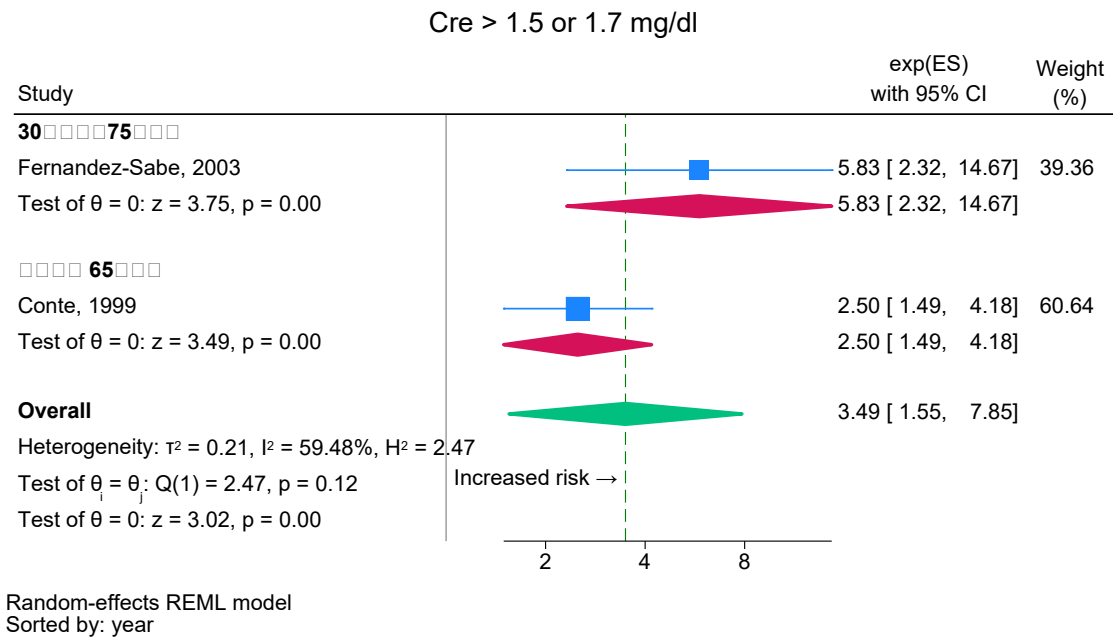
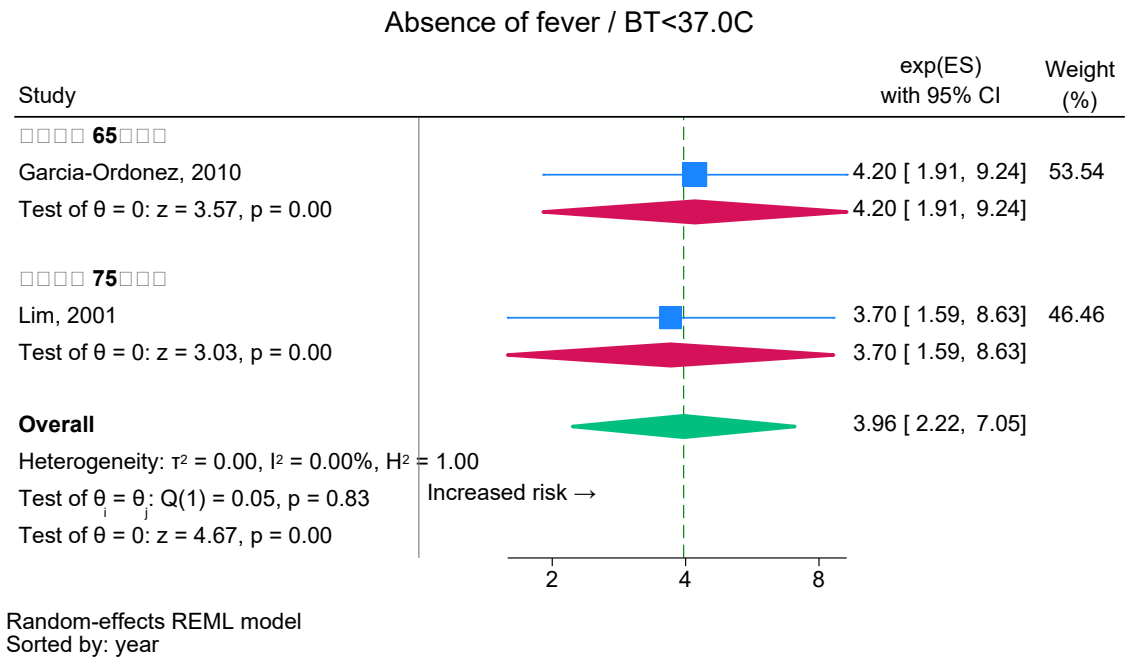


図 Suppl3-14. (Severity/clinical condition) Hypothermia.



☒ Suppl4-1. (Functional status) Bedridden.

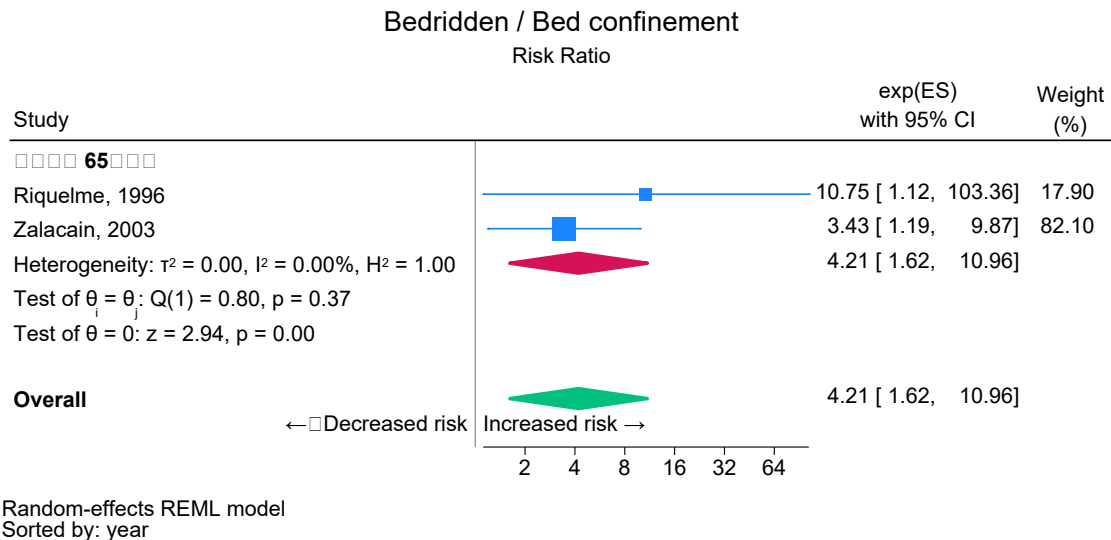


図 Suppl5-1. (Other factors) 1-g/dL increase of serum albumin

