

PNB versus no PNB for THA/TKA

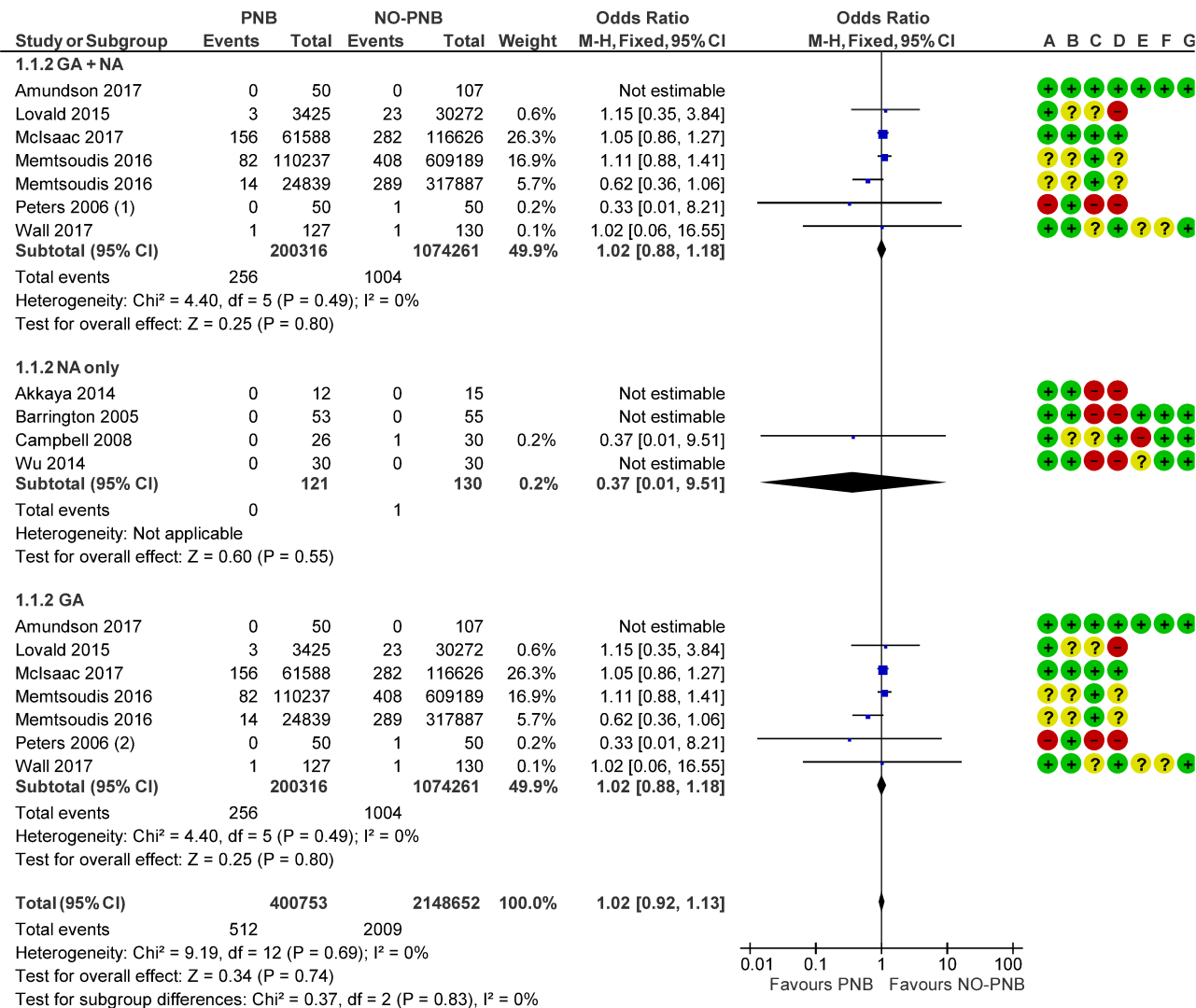
23-Feb-2021

1 PNB vs NO-PNB

PNB versus no PNB for THA/TKA

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1.1 Mortality|GA/NA (THA/TKA)



Footnotes

- (1) Peters excluded as PNB in both groups
- (2) Peters excluded as PNB in both groups

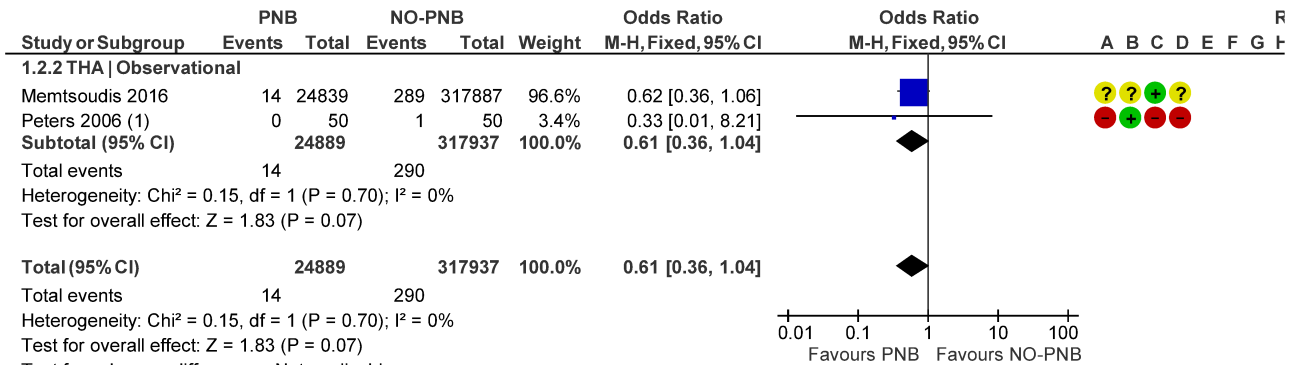
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate
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PNB versus no PNB for THA/TKA

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1.2 Mortality | THA



Footnotes

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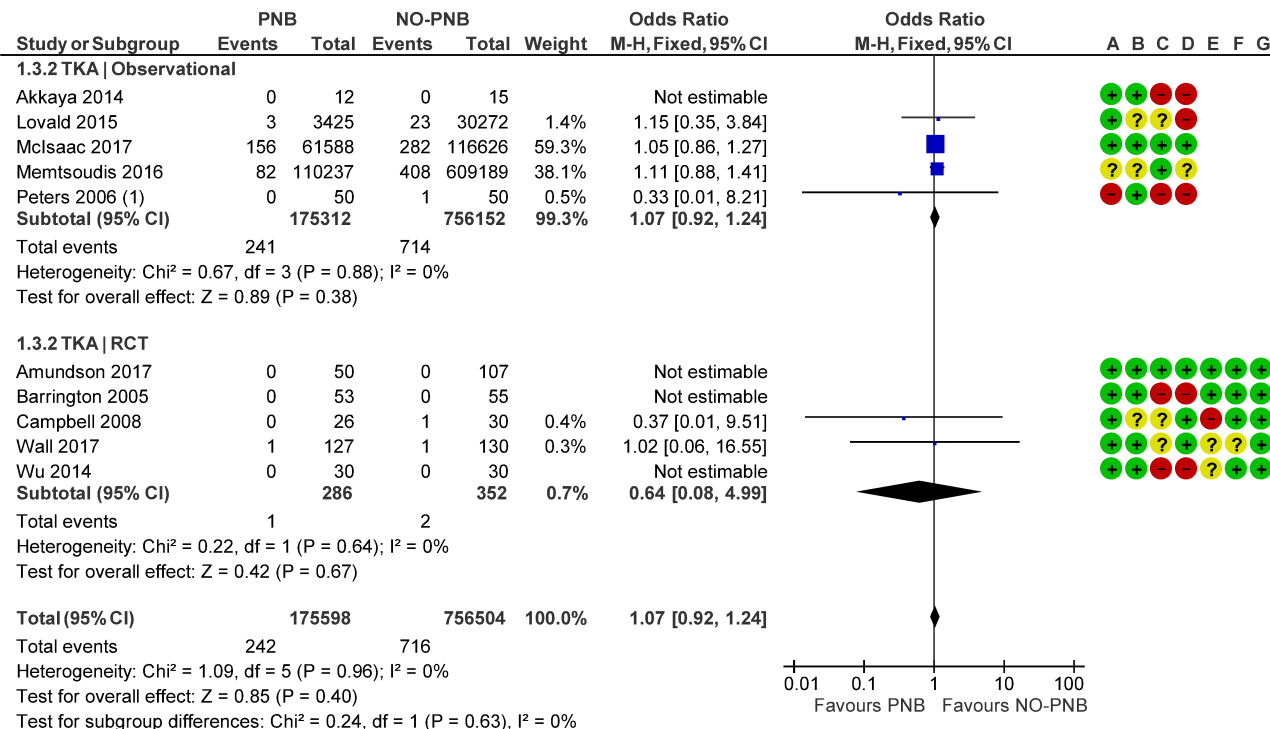
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1.3 Mortality | TKA



Footnotes

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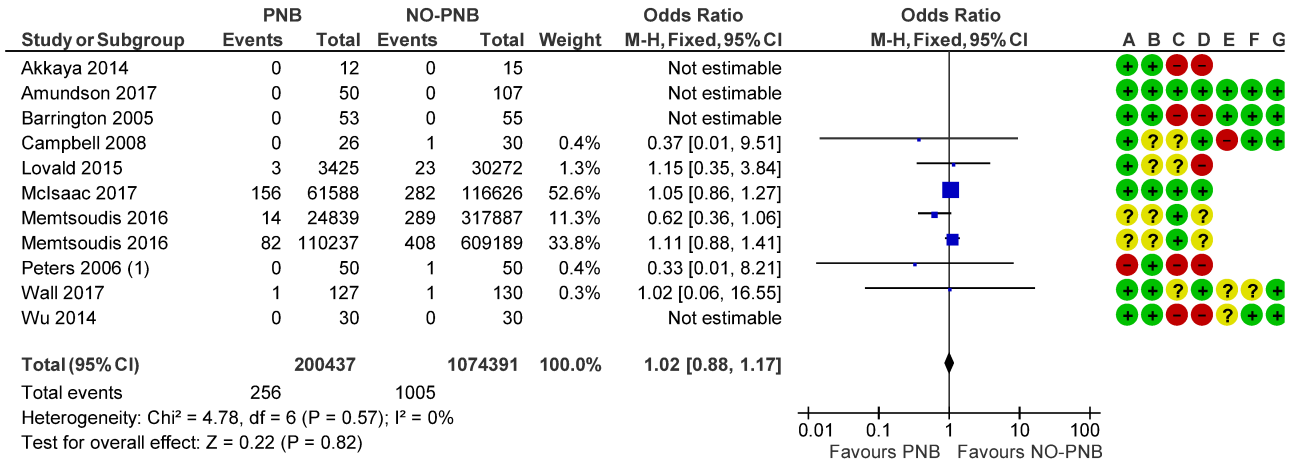
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1.4 Mortality | Total



Footnotes

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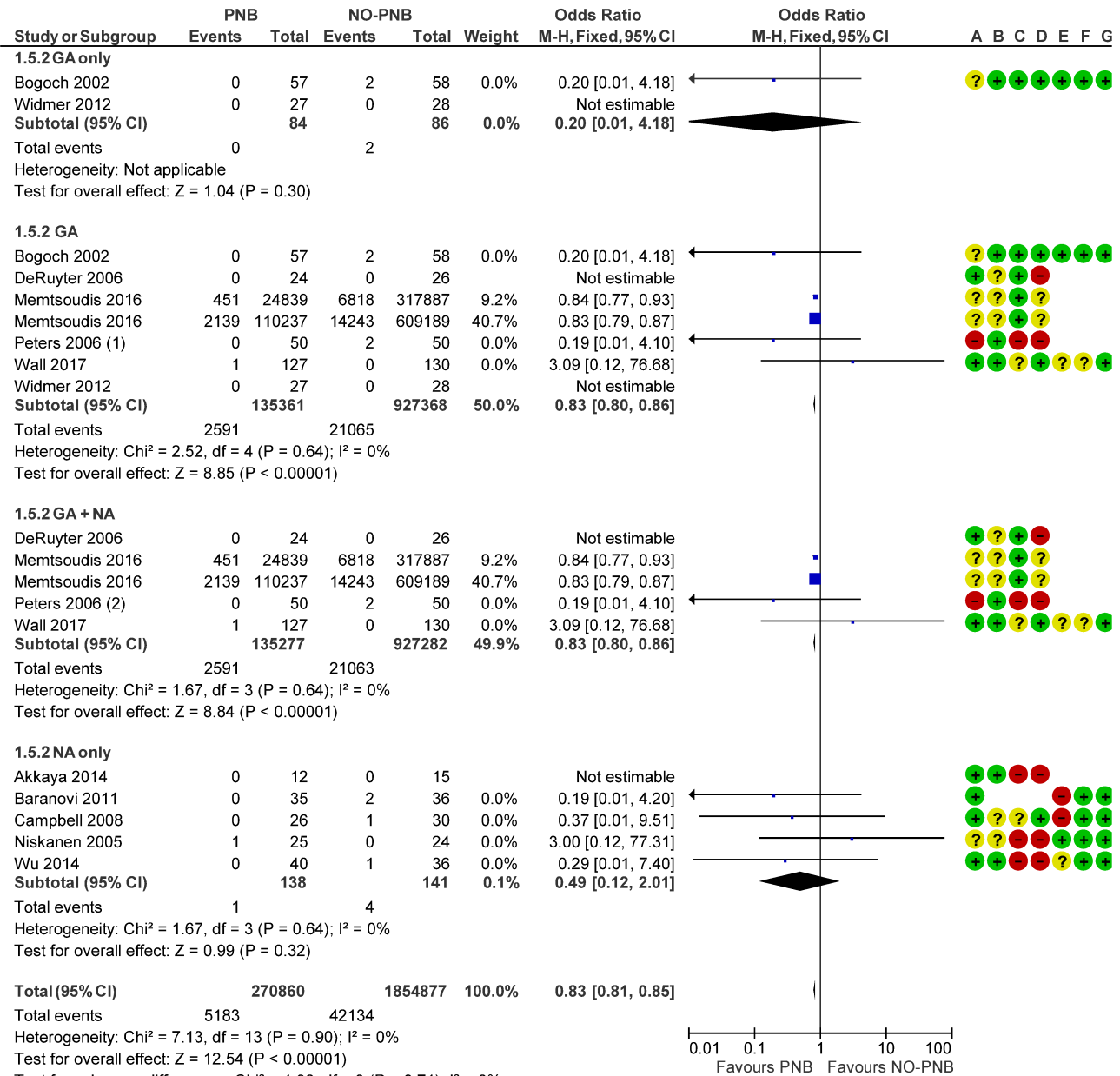
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PNB versus no PNB for THA/TKA

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1.5 Cardiac Composite without MI | GA/NA (THA/TKA)



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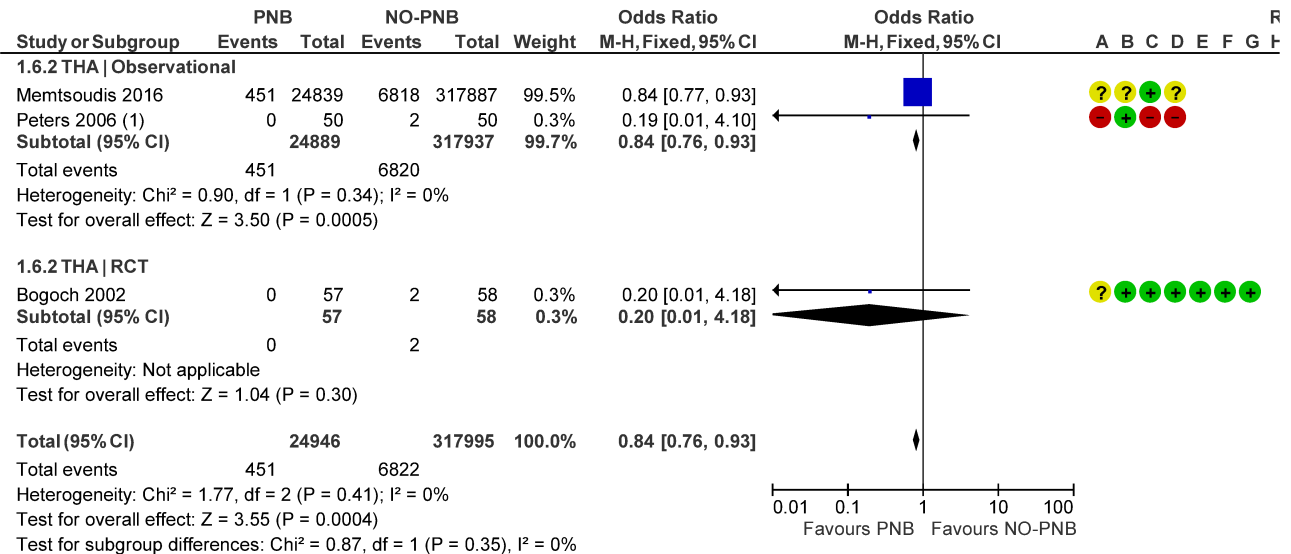
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PNB versus no PNB for THA/TKA

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1.6 Cardiac Composite without MI | THA



Footnotes

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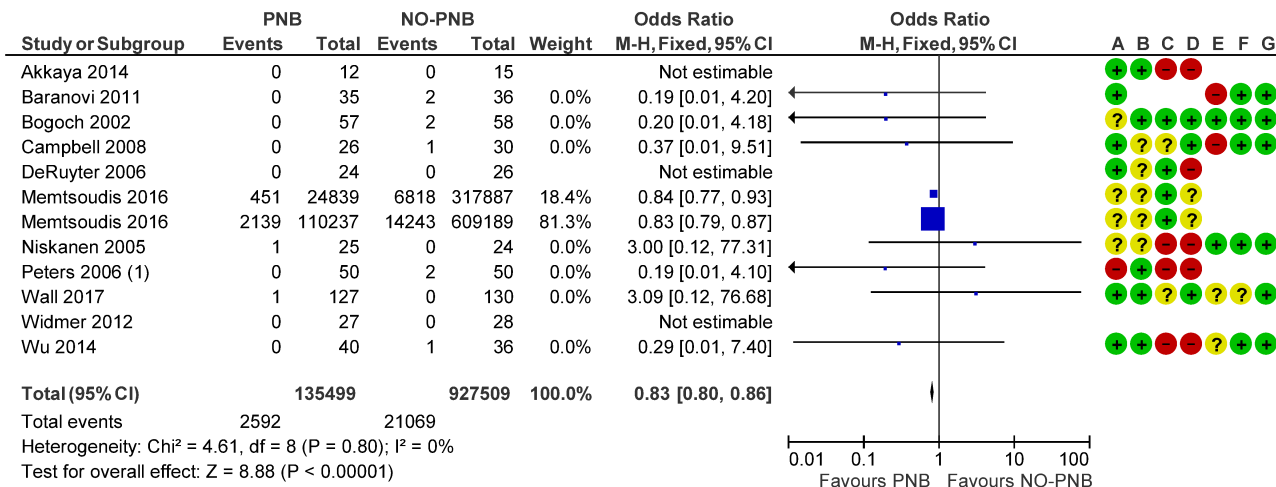
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1.7 Cardiac Composite without MI | Total



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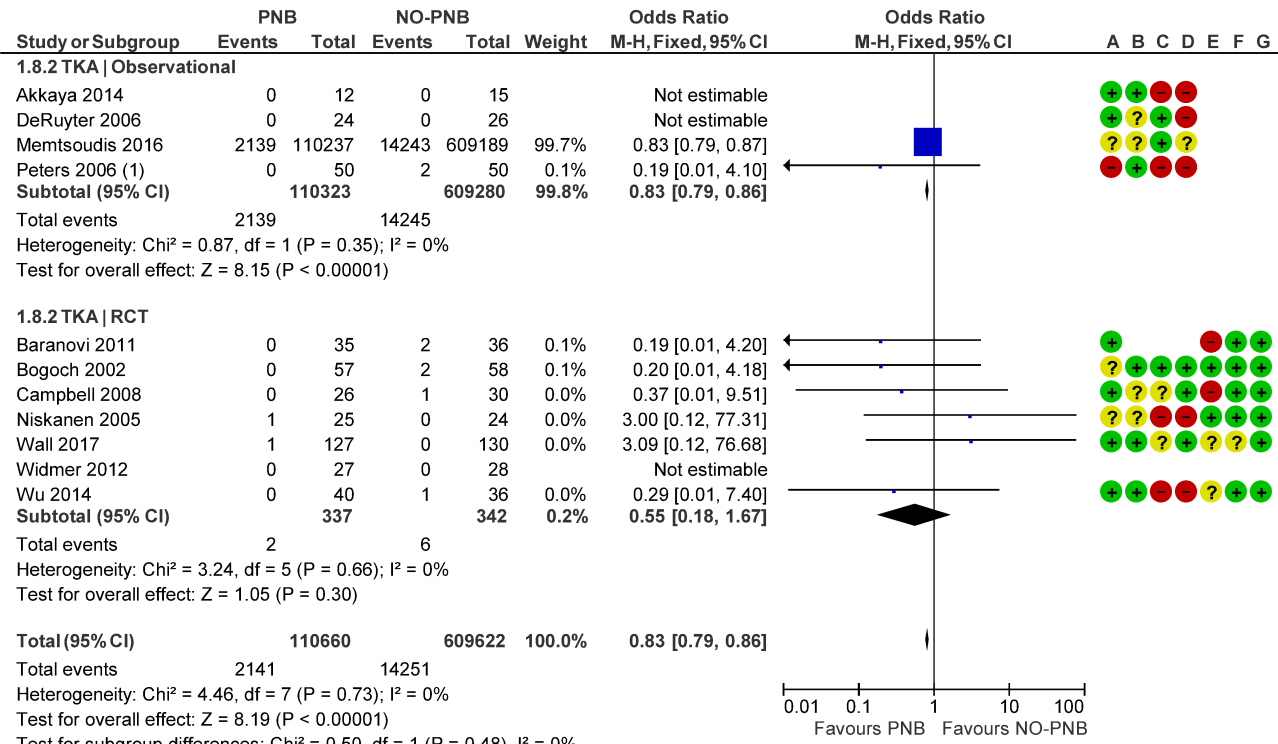
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1.8 Cardiac Composite without MI | TKA



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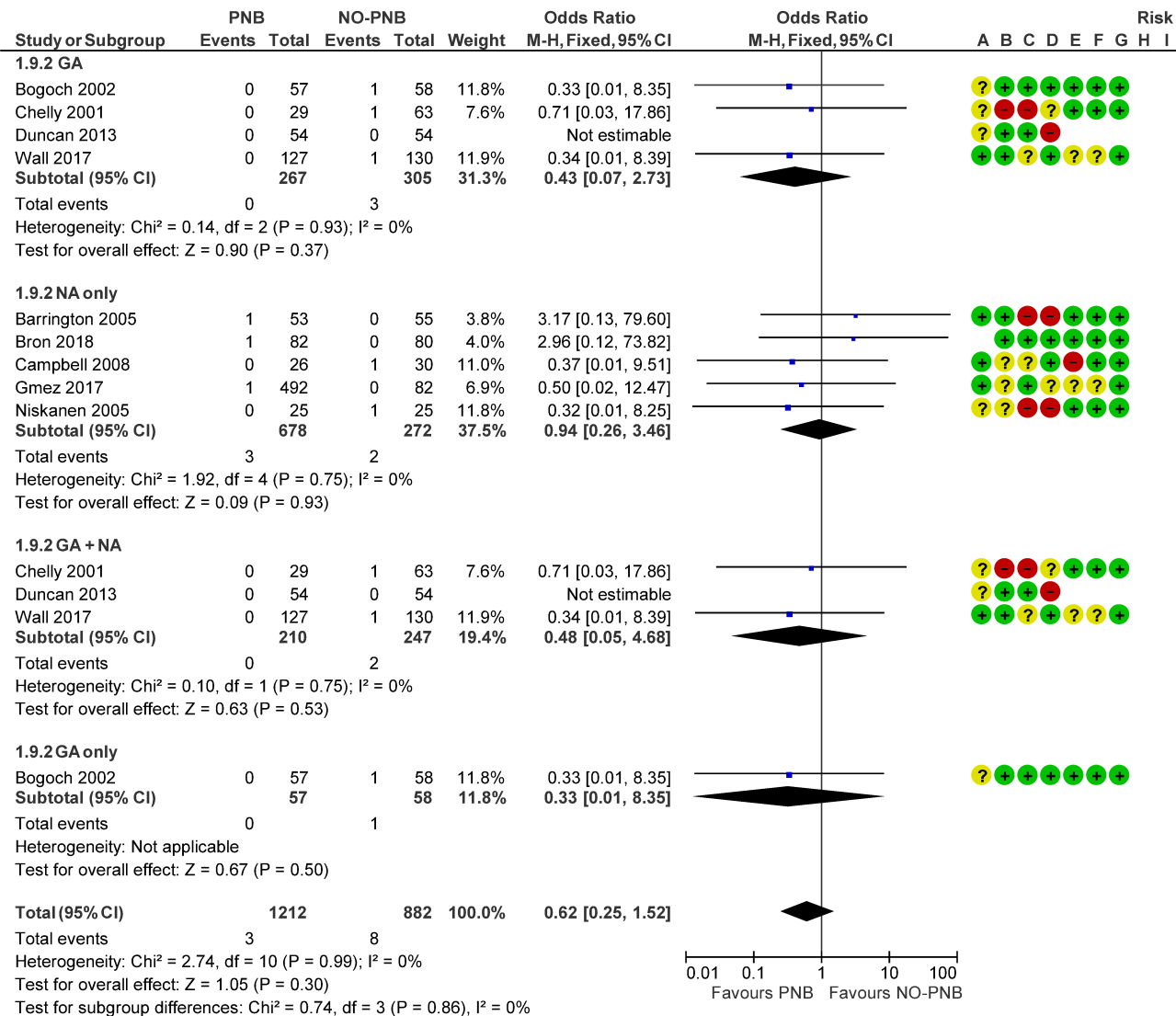
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1.9 Myocardial infarction | GA/NA (THA/TKA)



Risk of bias legend

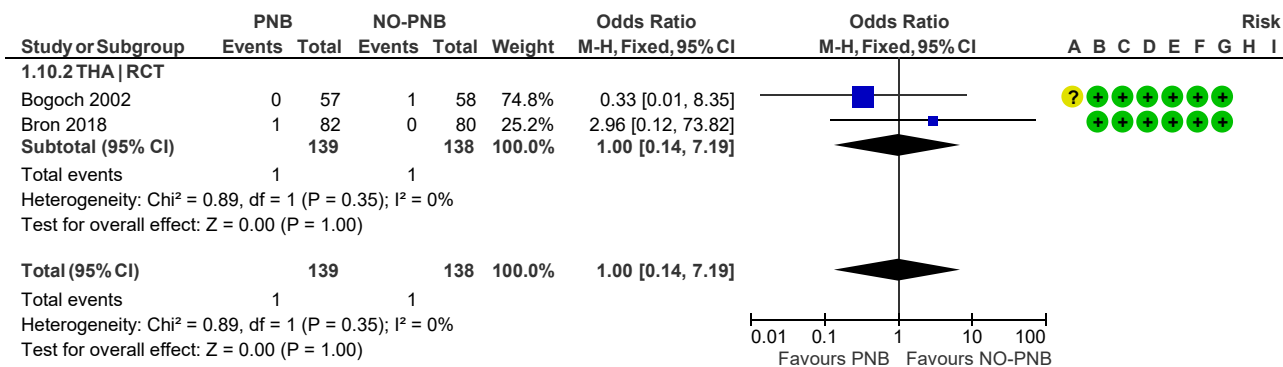
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(R) RCT: incomplete outcome data

1.10 Myocardial infarction | THA



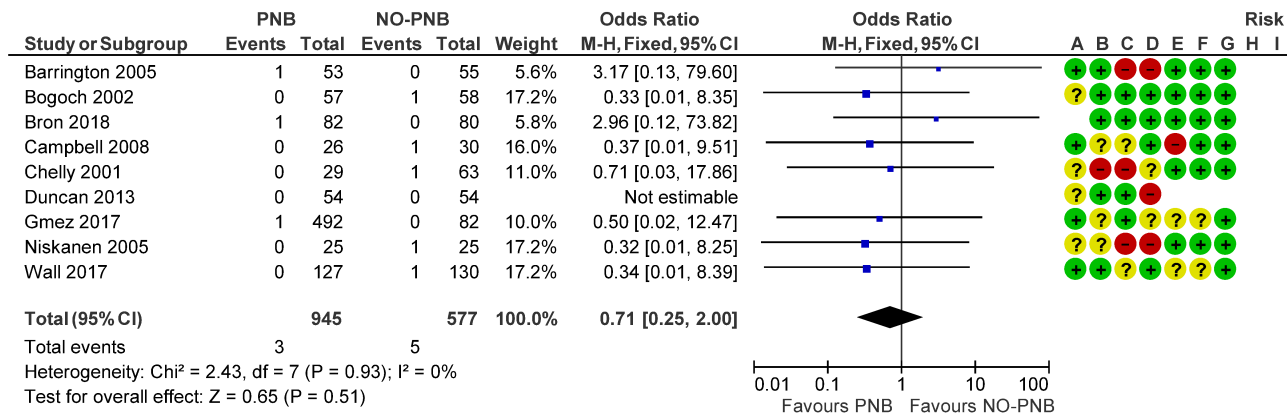
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1.11 Myocardial infarction | Total



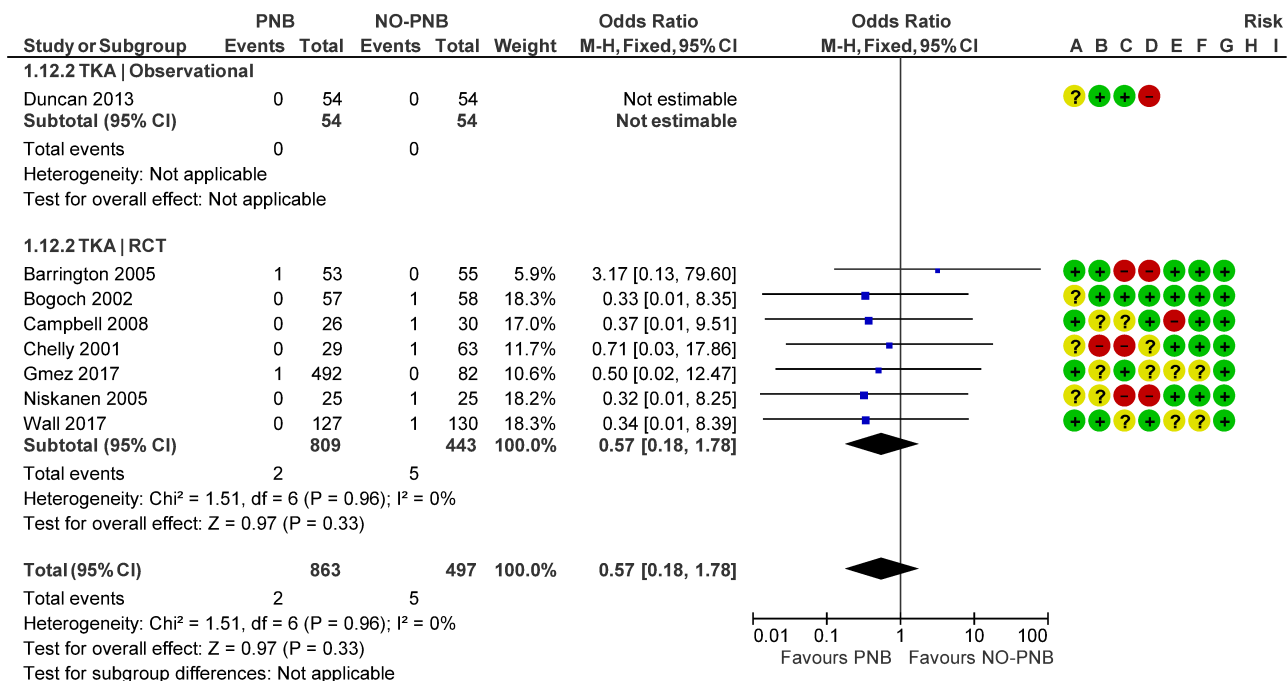
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1.12 Myocardial infarction | TKA



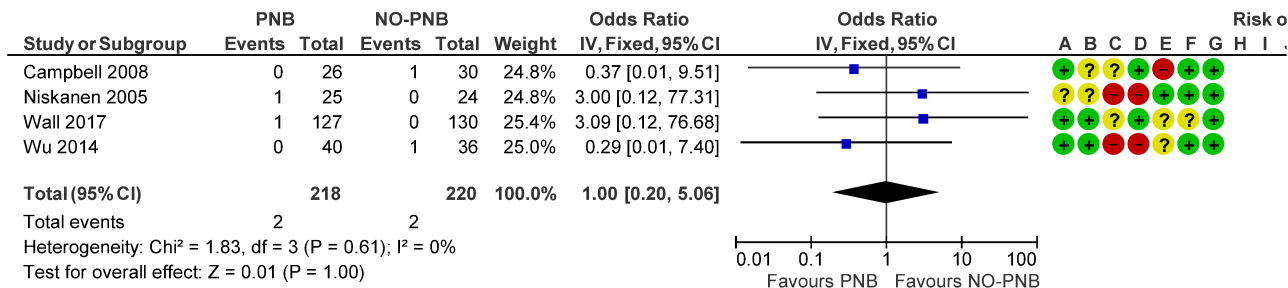
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PNB versus no PNB for THA/TKA

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1.13 Atrial fibrillation | Total

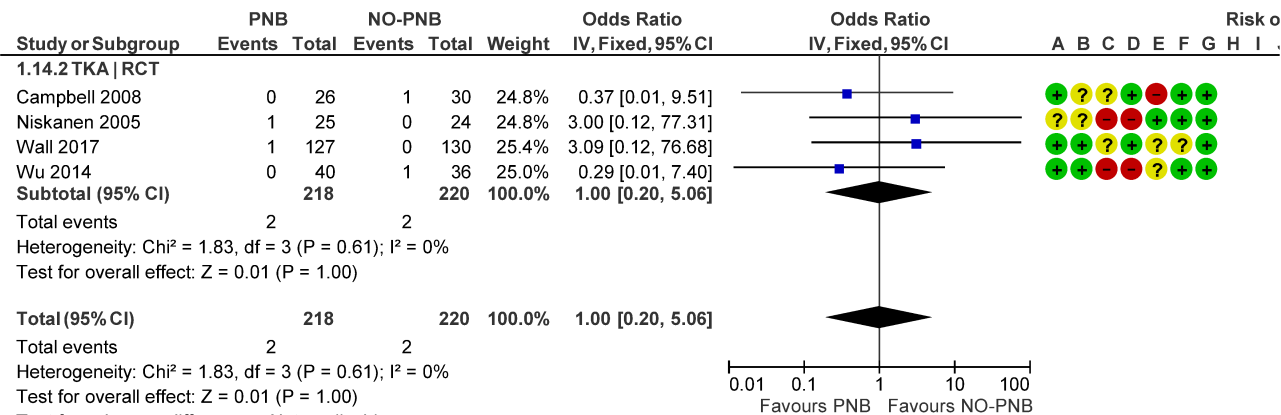
Risk of bias legend

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PNB versus no PNB for THA/TKA

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1.14 Atrial fibrillation | TKA



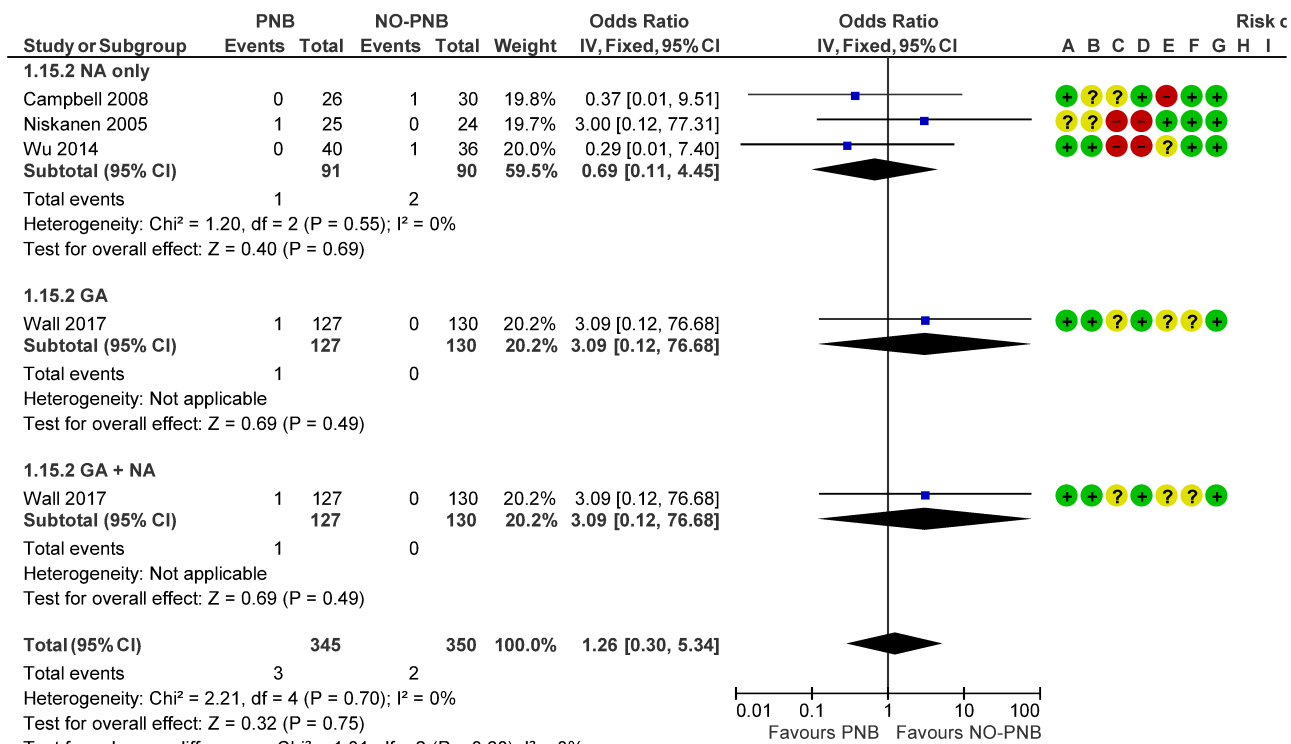
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PNB versus no PNB for THA/TKA

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1.15 Atrial fibrillation | GA/NA (THA/TKA)



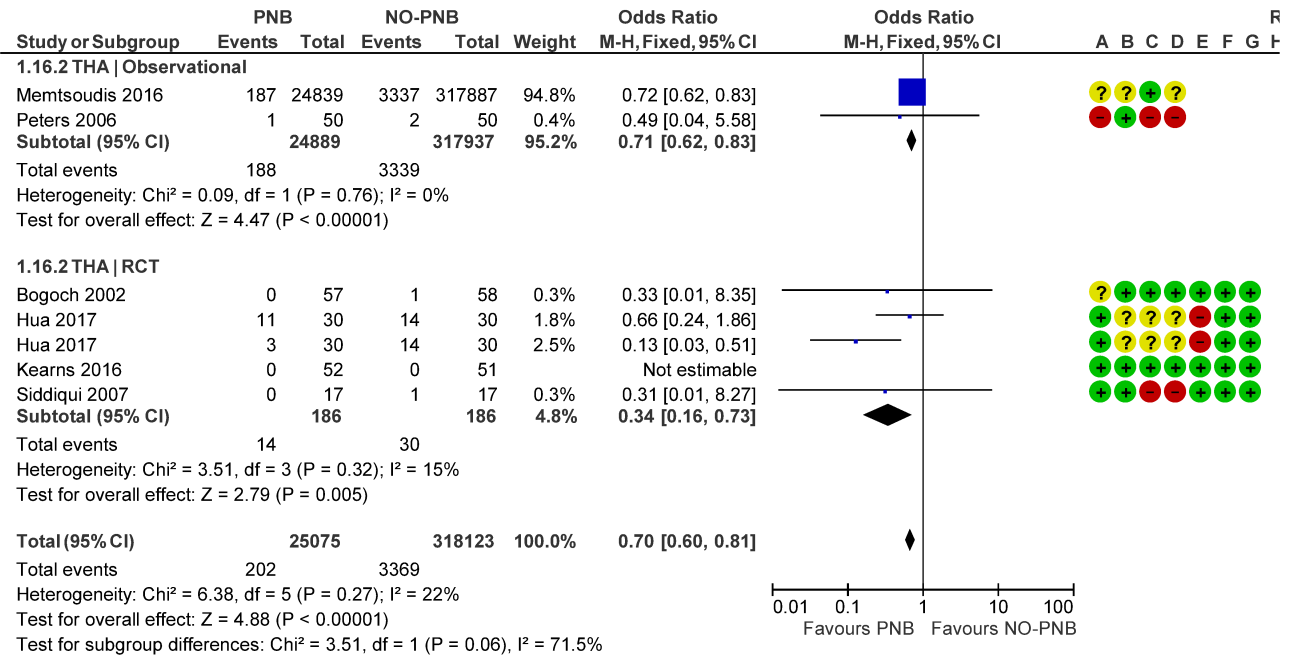
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PNB versus no PNB for THA/TKA

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1.16 Pulmonary Composite | THA



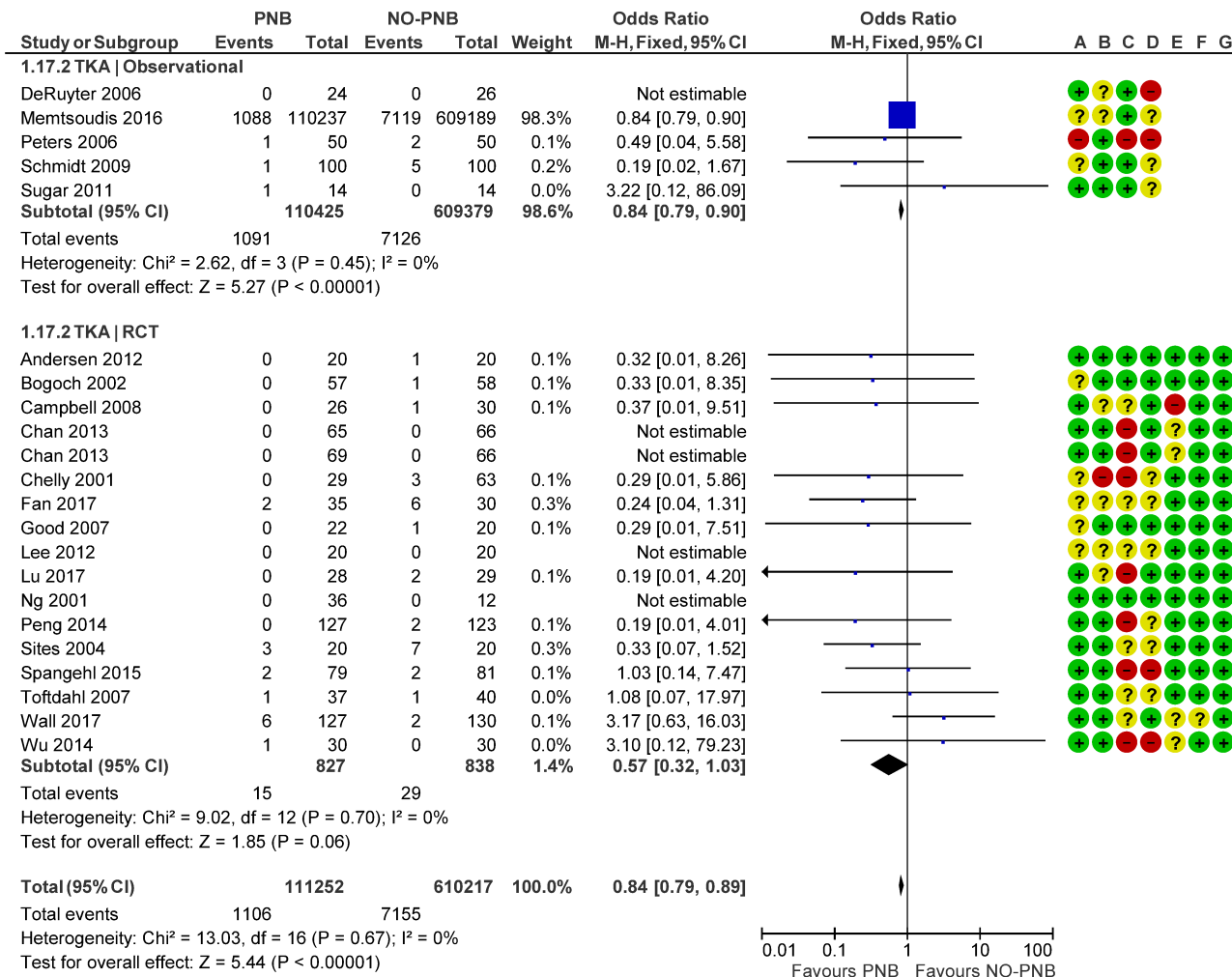
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PNB versus no PNB for THA/TKA

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1.17 Pulmonary Composite | TKA



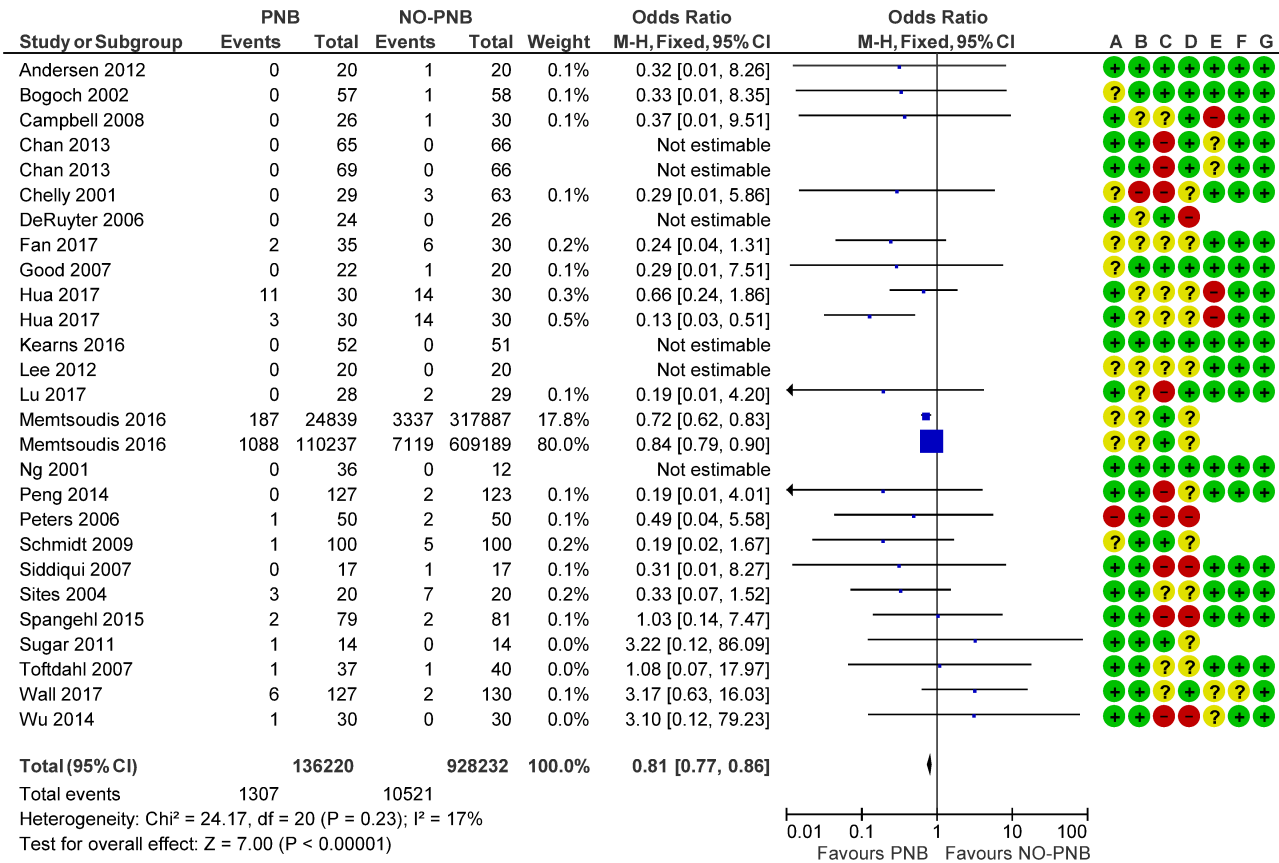
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PNB versus no PNB for THA/TKA

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1.18 Pulmonary Composite | Total



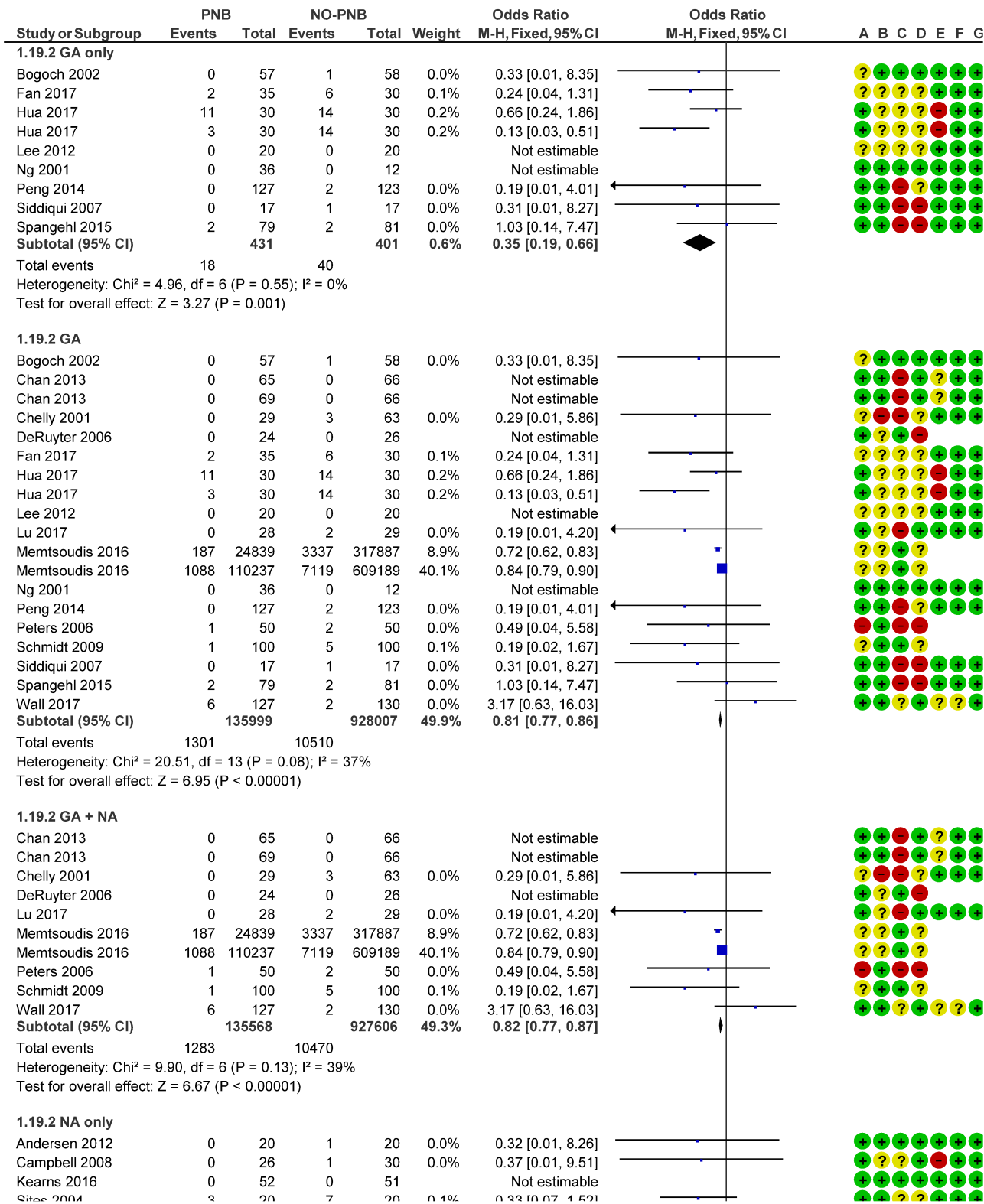
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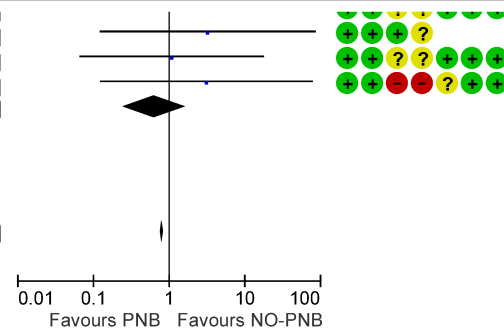
1.19 Pulmonary Composite | GA/NA (THA/TKA)



PNB versus no PNB for THA/TKA

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Study	n	no	no	0.1%	0.00 [0.07, 1.92]
Sugar 2011	1	14	0	14	0.0%
Toftdahl 2007	1	37	1	40	0.0%
Wu 2014	1	30	0	30	0.0%
Subtotal (95% CI)		199		205	0.2%
Total events	6	10			
Heterogeneity: Chi ² = 3.00, df = 5 (P = 0.70); I ² = 0%					
Test for overall effect: Z = 0.90 (P = 0.37)					



Total (95% CI)	272197	1856219	100.0%	0.81 [0.78, 0.85]
Total events	2608	21030		
Heterogeneity: Chi ² = 44.30, df = 33 (P = 0.09); I ² = 26%				
Test for overall effect: Z = 9.85 (P < 0.00001)				
Test for subgroup differences: Chi ² = 7.14, df = 3 (P = 0.07), I ² = 58.0%				

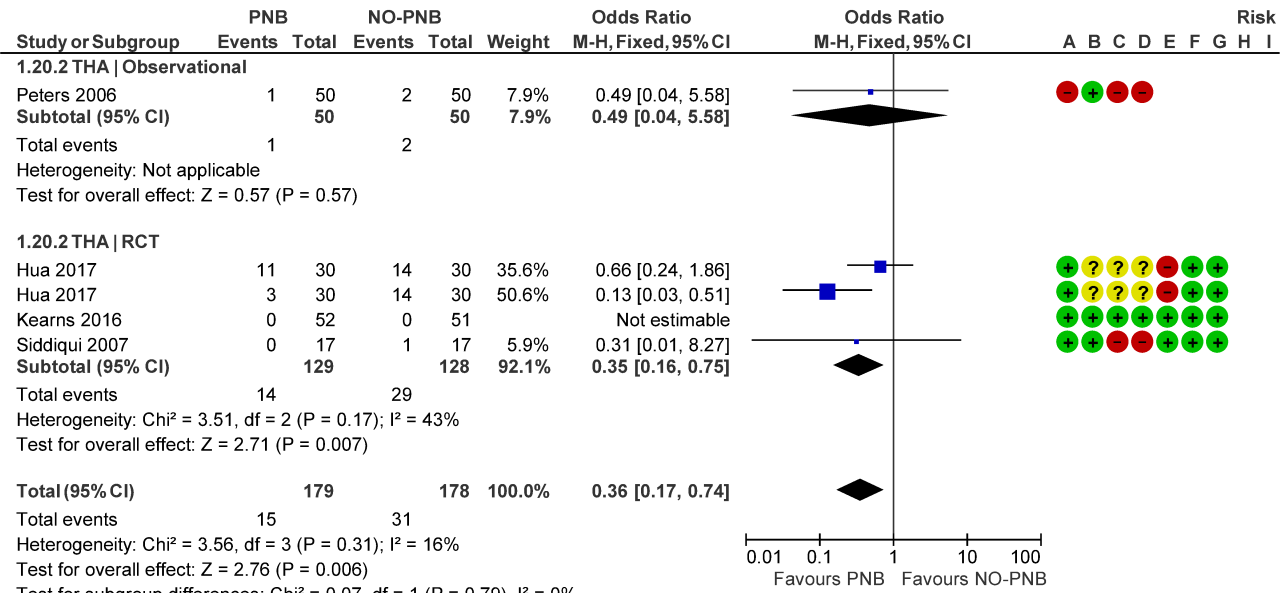
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PNB versus no PNB for THA/TKA

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1.20 Respiratory failure (composite) | THA



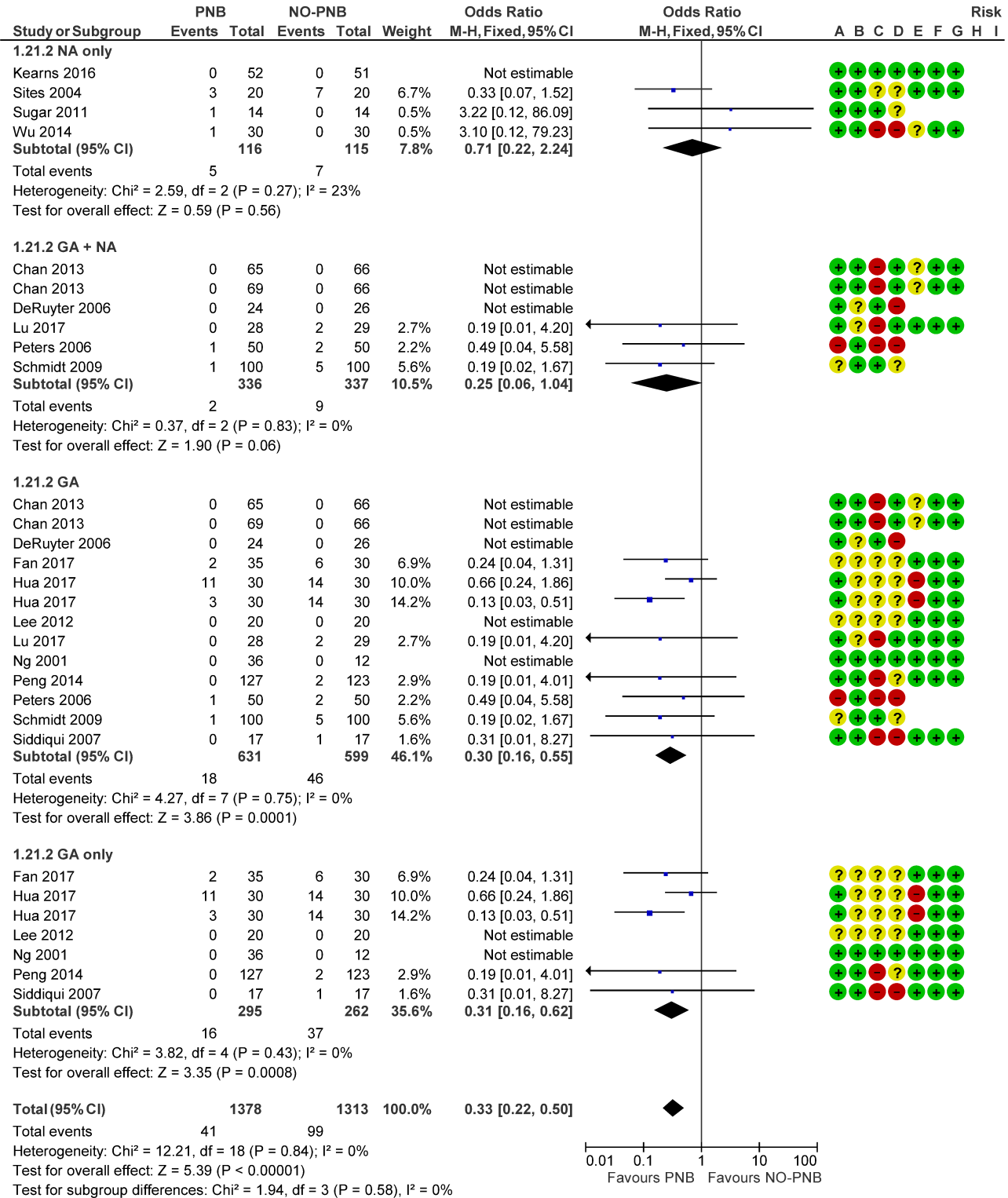
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PNB versus no PNB for THA/TKA

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1.21 Respiratory failure (composite) | GA/NA (THA/TKA)



Risk of bias legend

(A) Random sequence generation (selection bias)

Review Manager 5.4.1

PNB versus no PNB for THA/TKA

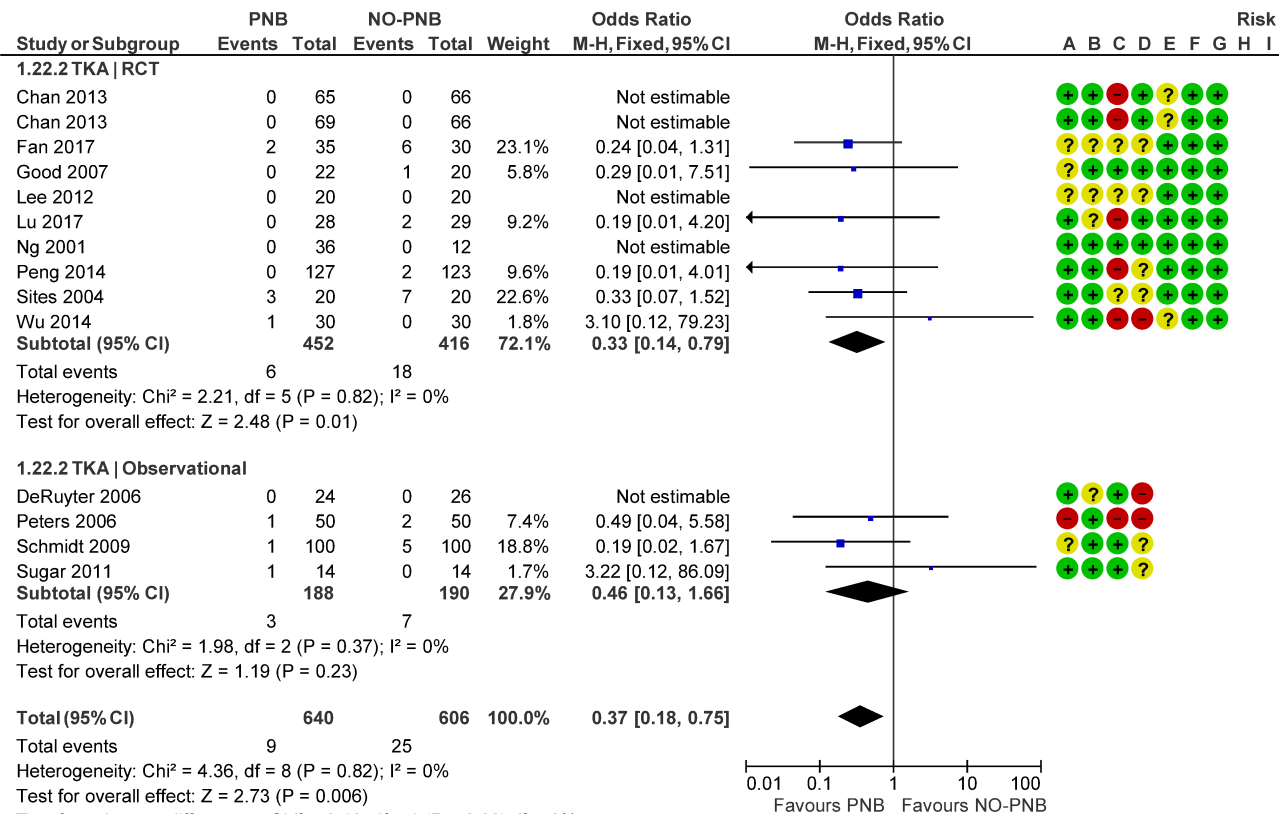
23-Feb-2021

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.22 Respiratory failure (composite) | TKA



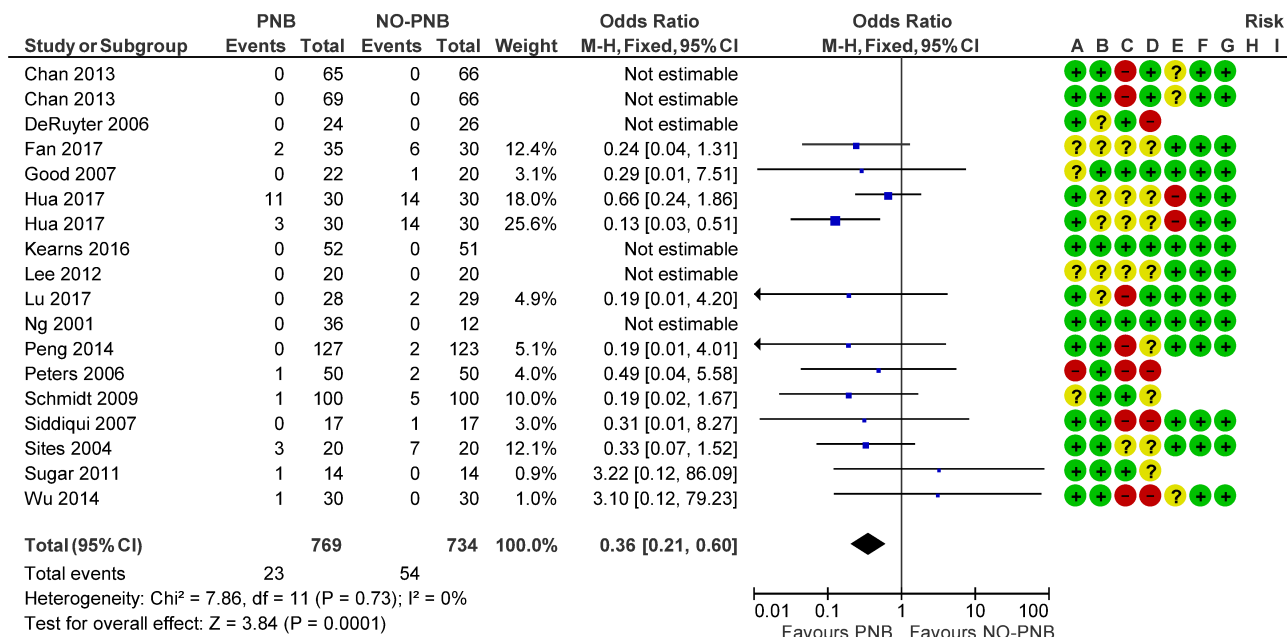
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.23 Respiratory failure (composite) | Total



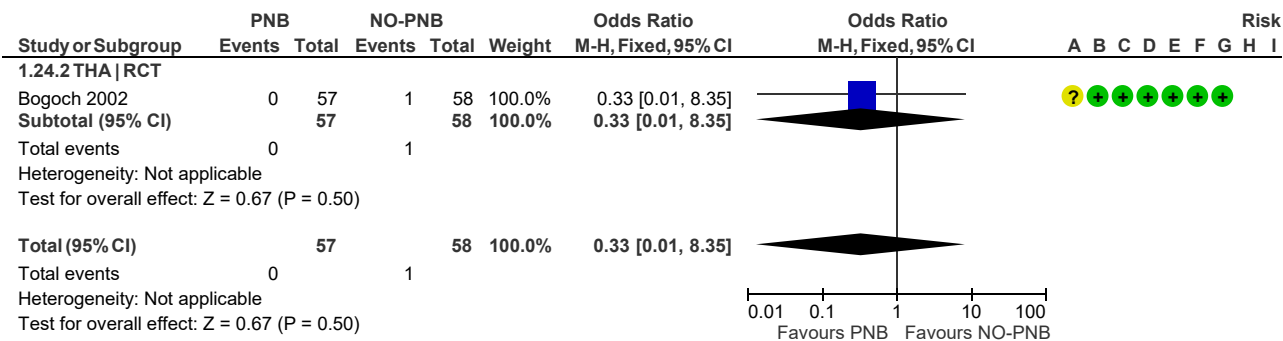
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
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- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.24 Pneumonia | THA

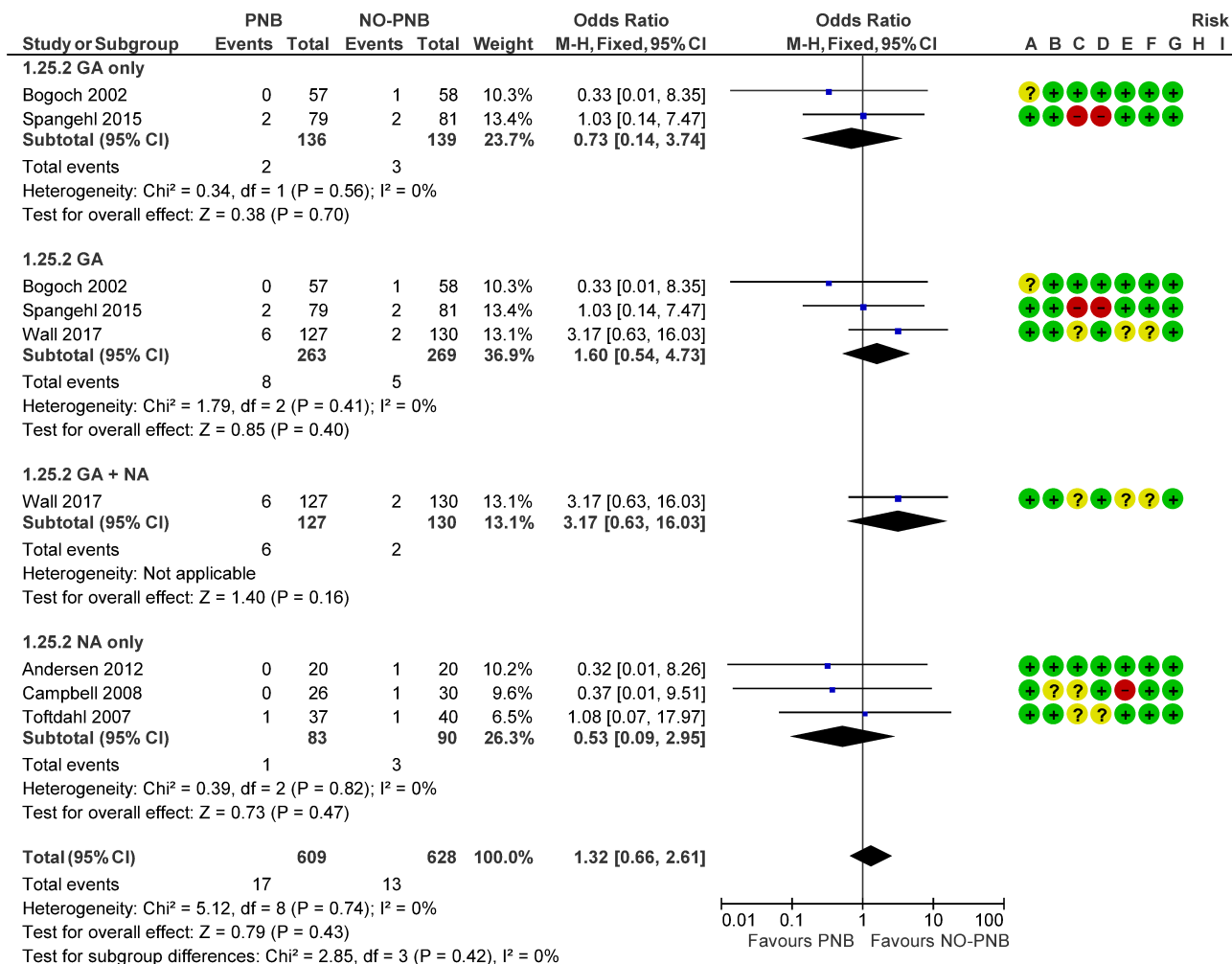
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (G) Other bias
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.25 Pneumonia|GA/NA(THA/TKA)



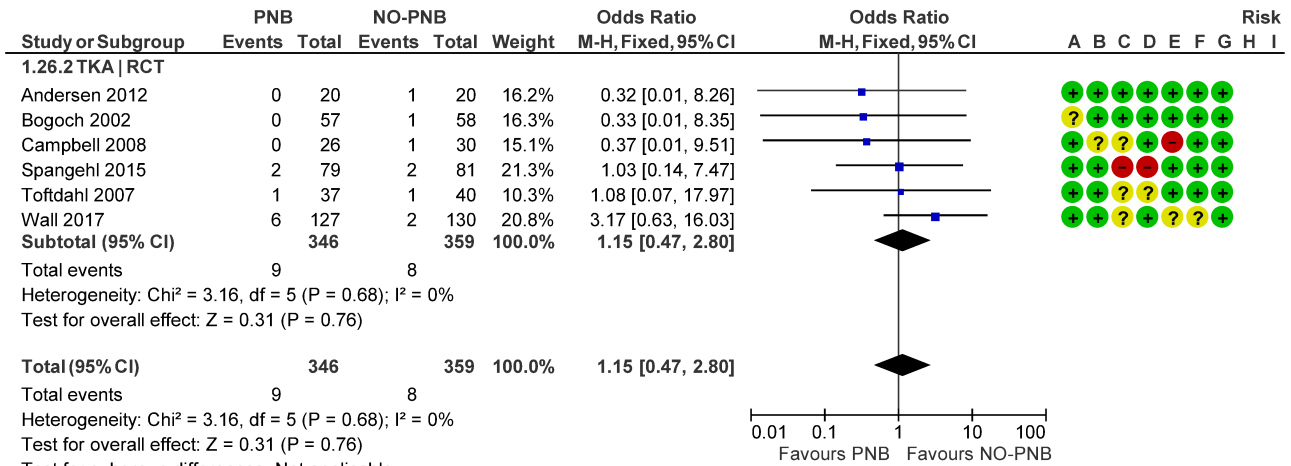
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
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- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.26 Pneumonia | TKA



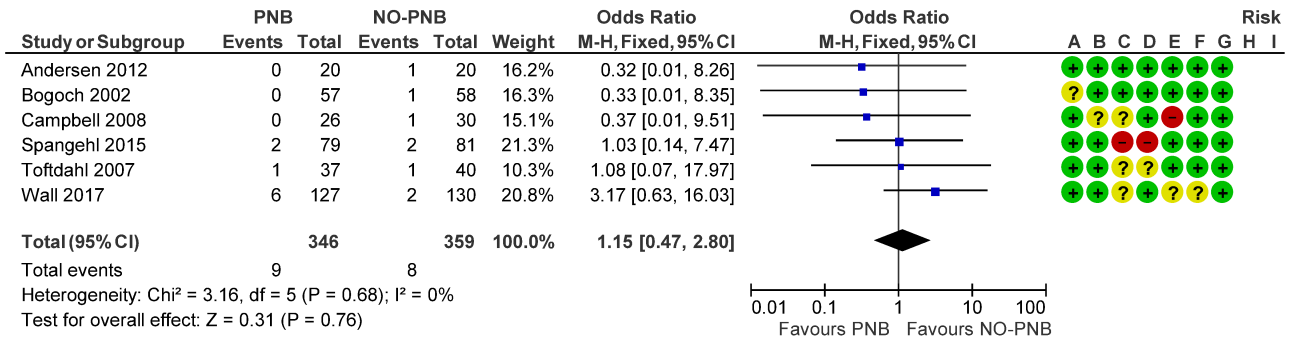
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.27 Pneumonia | Total



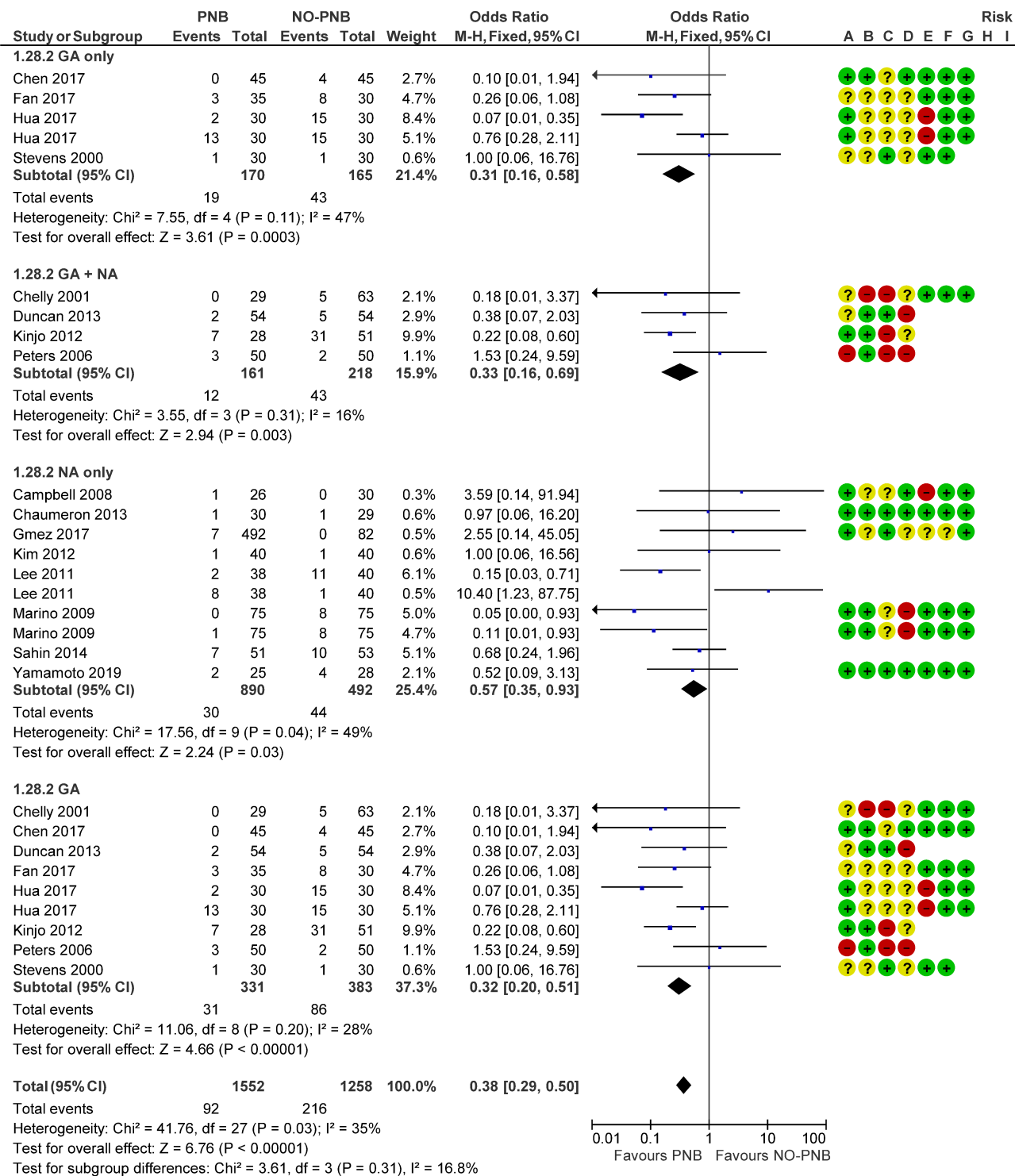
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.28 Cognitive dysfunction (composite) | GA/NA (THA/TKA)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)

PNB versus no PNB for THA/TKA

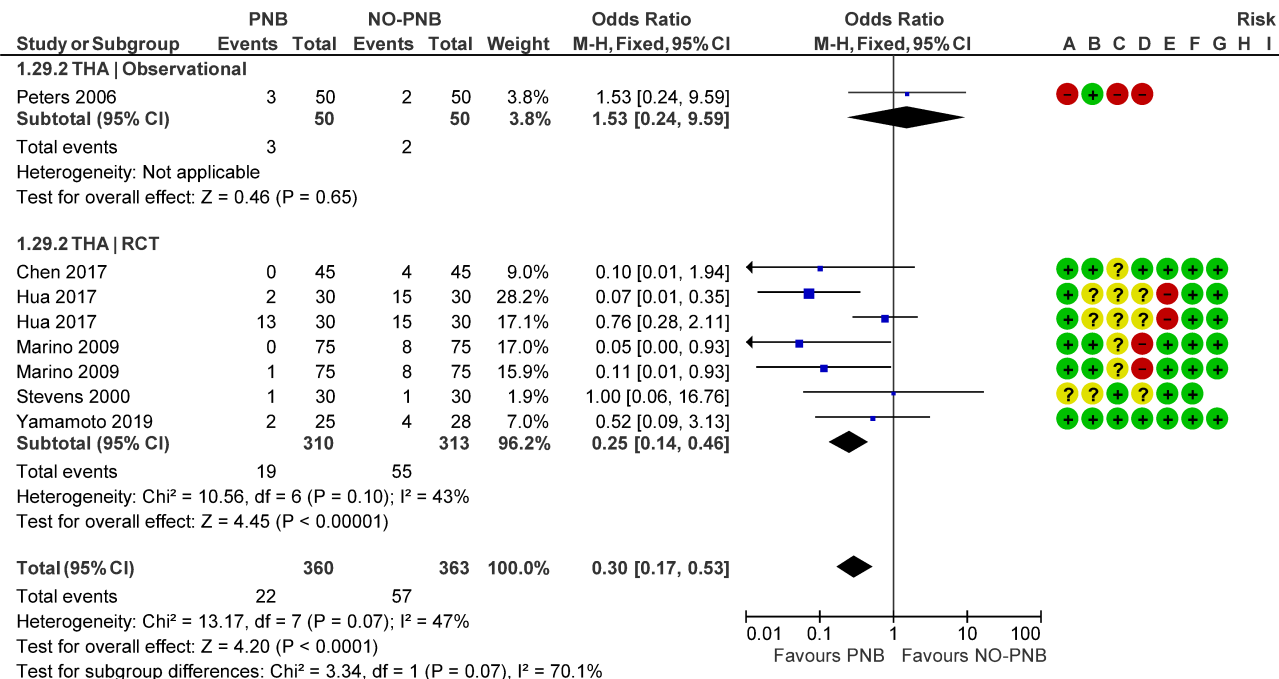
23-Feb-2021

- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.29 Cognitive dysfunction (composite) | THA



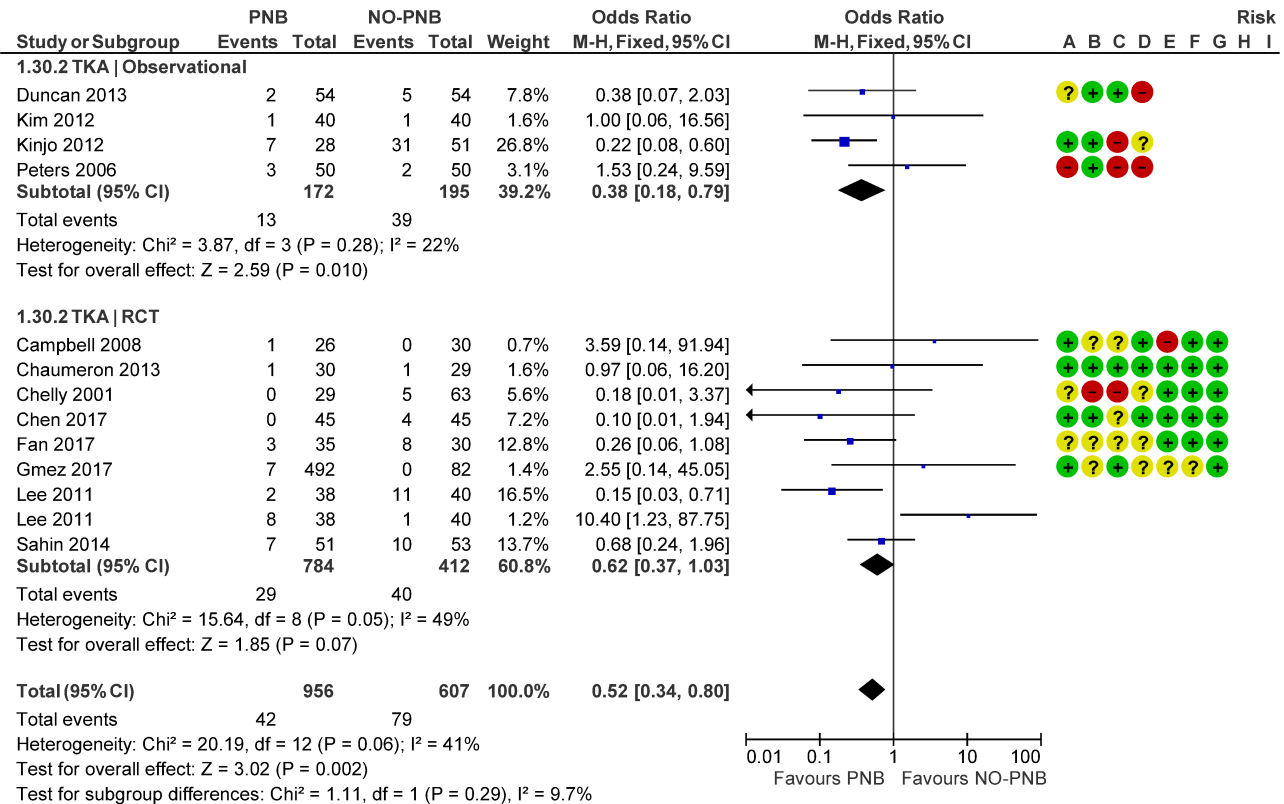
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (K) Observational Study: Failure to adequately control for confounding
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- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.30 Cognitive dysfunction (composite) | TKA



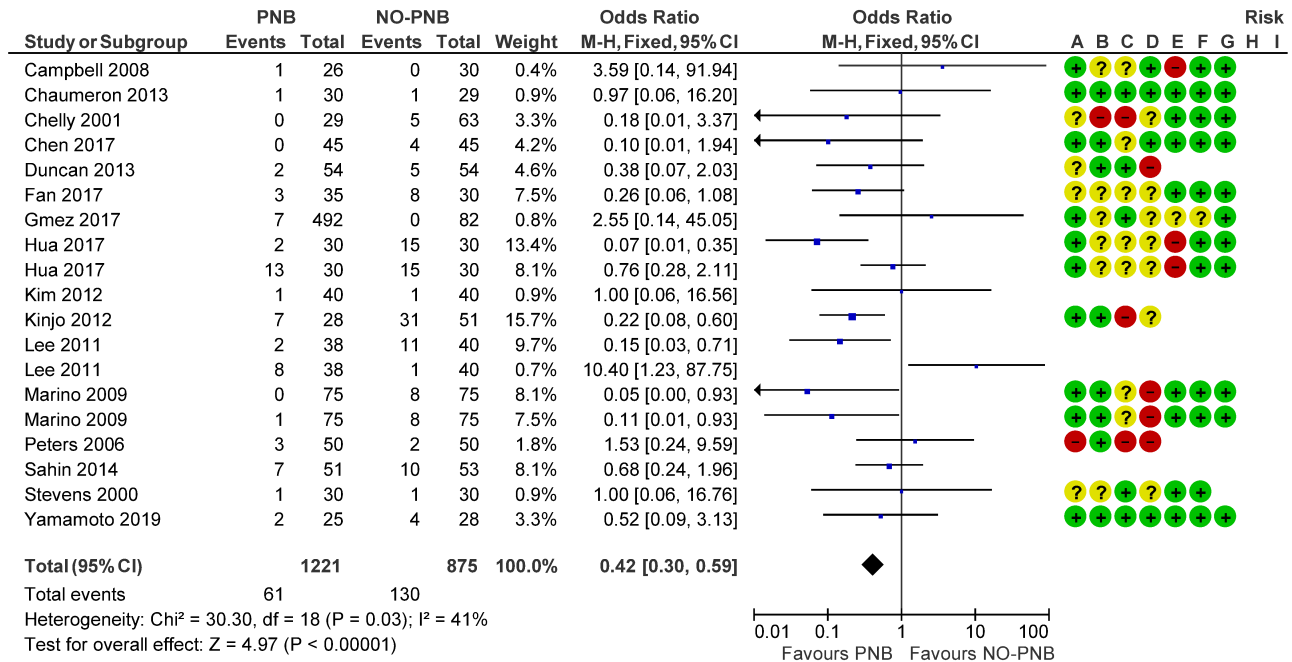
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.31 Cognitive dysfunction (composite) | Total



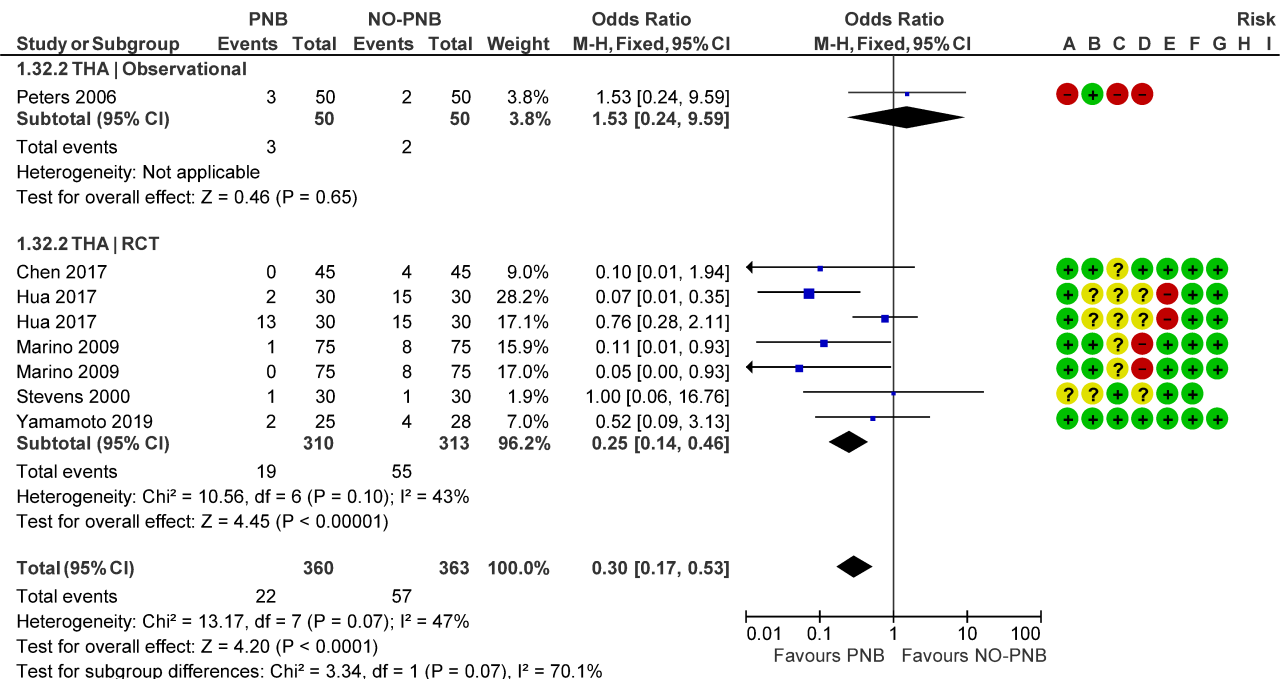
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (O) RCT: Blinding of outcome assessors
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- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.32 Delirium | THA



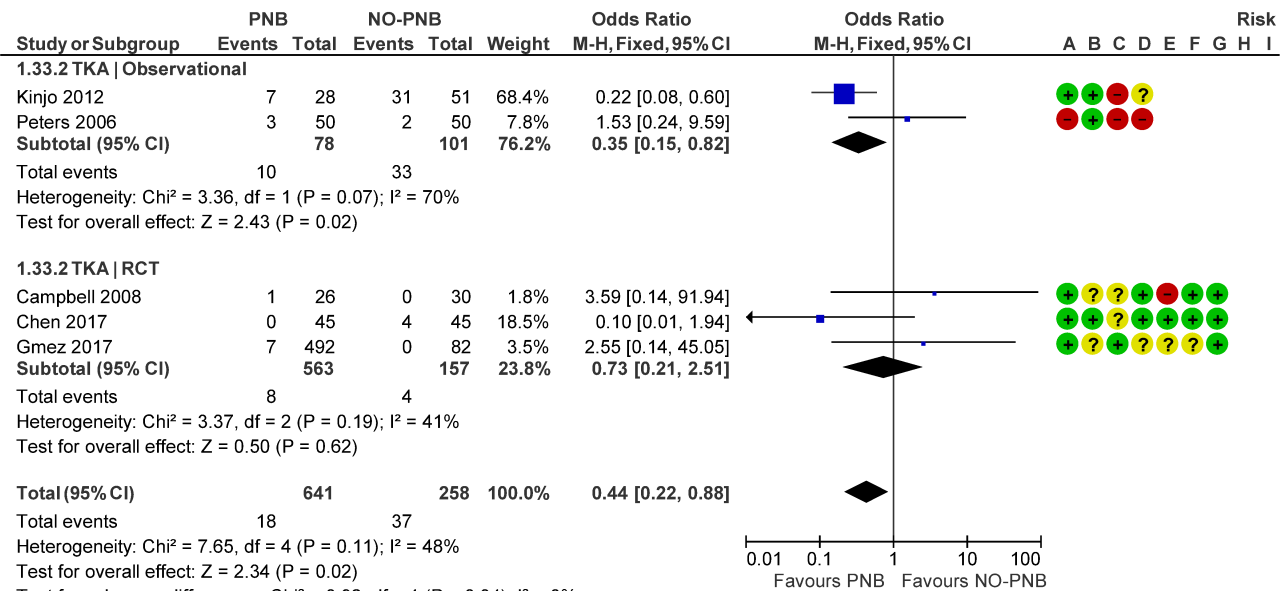
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.33 Delirium | TKA



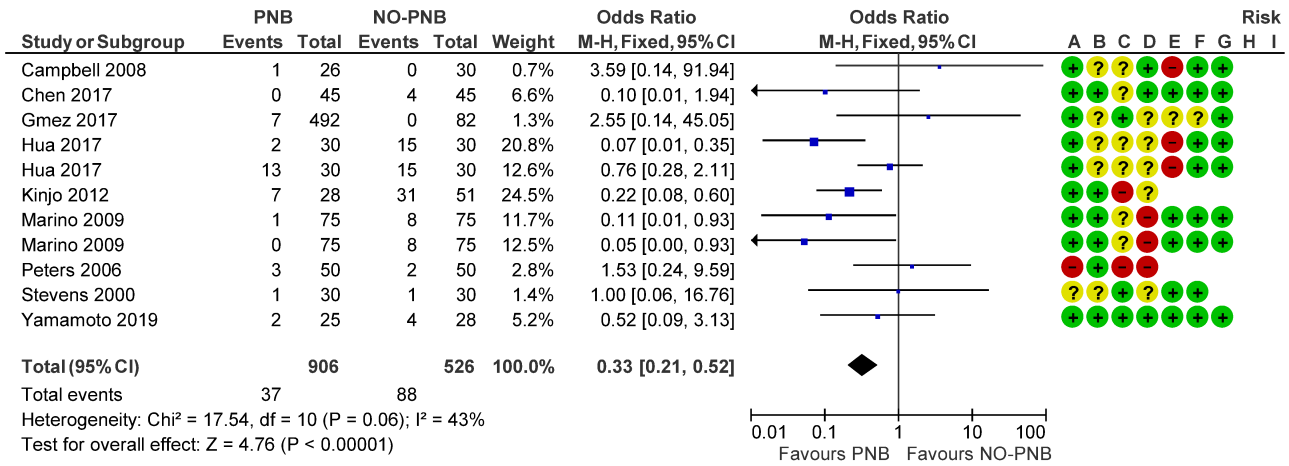
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.34 Delirium | Total



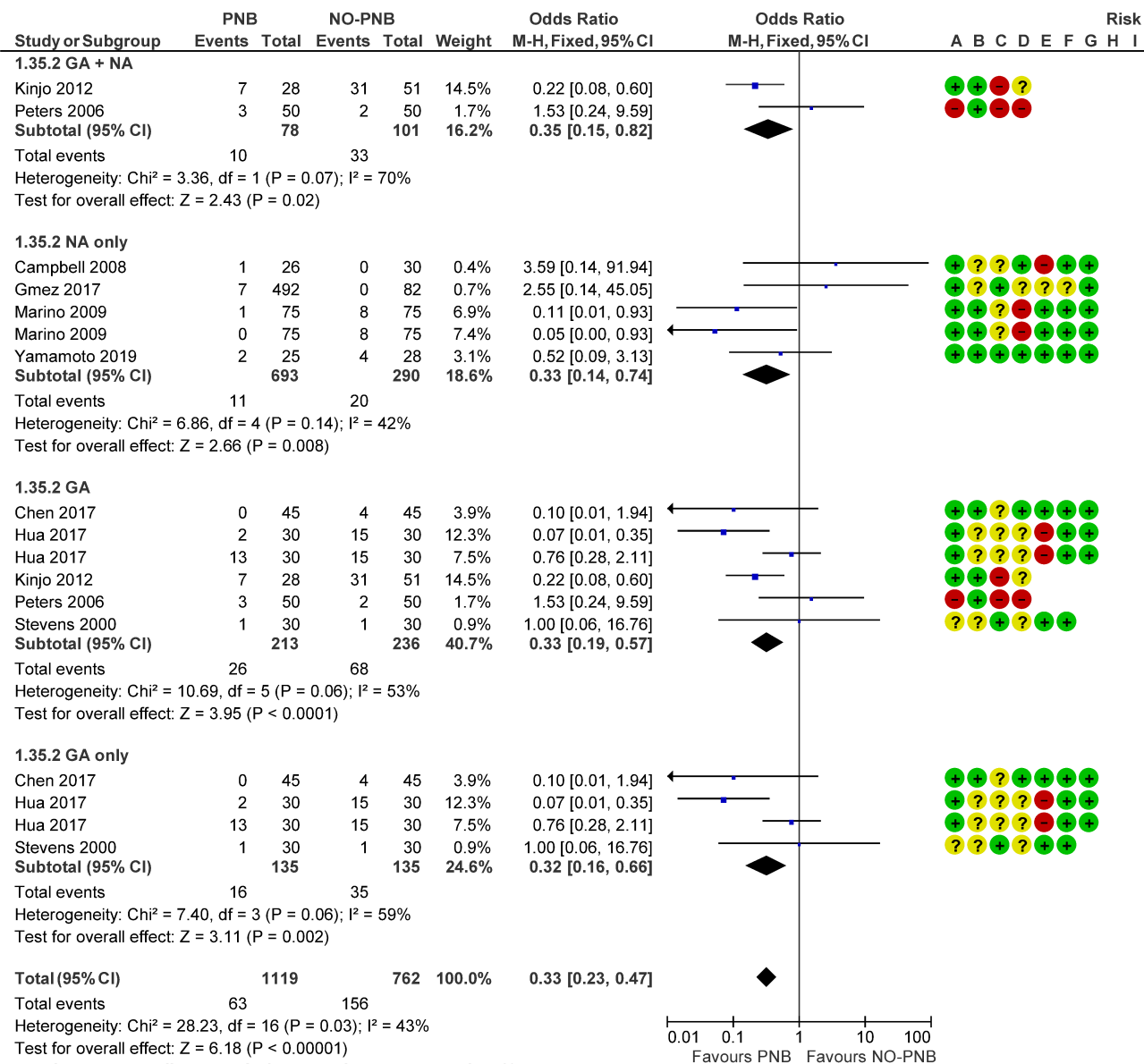
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (K) Observational Study: Failure to adequately control for confounding
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- (M) RCT: Sequence Generation
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.35 Delirium | GA/NA (THA/TKA)



Risk of bias legend

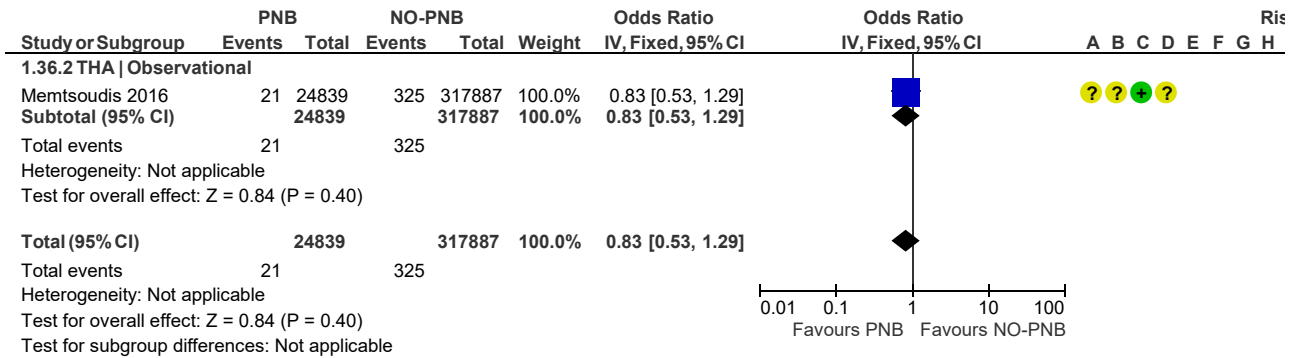
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias

PNB versus no PNB for THA/TKA

23-Feb-2021

- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

1.36 Stroke | THA



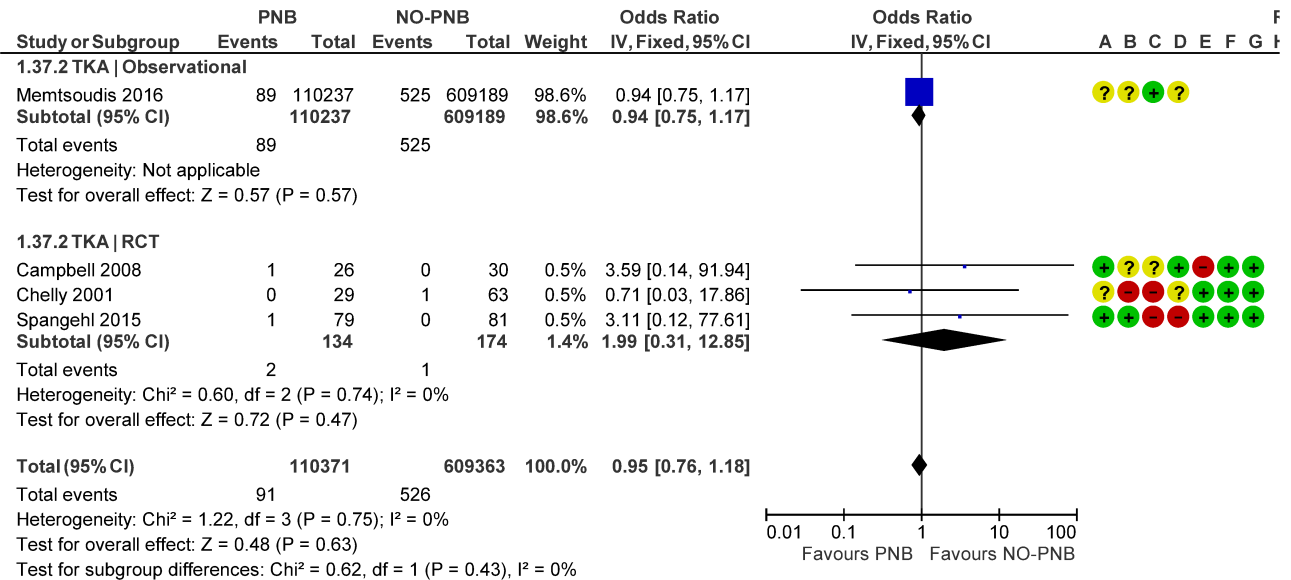
Risk of bias legend

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- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.37 Stroke | TKA



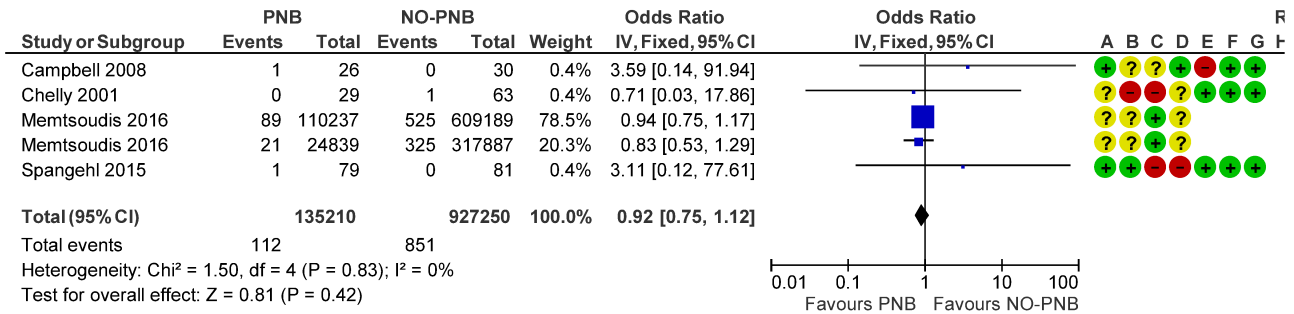
Risk of bias legend

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- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.38 Stroke | Total



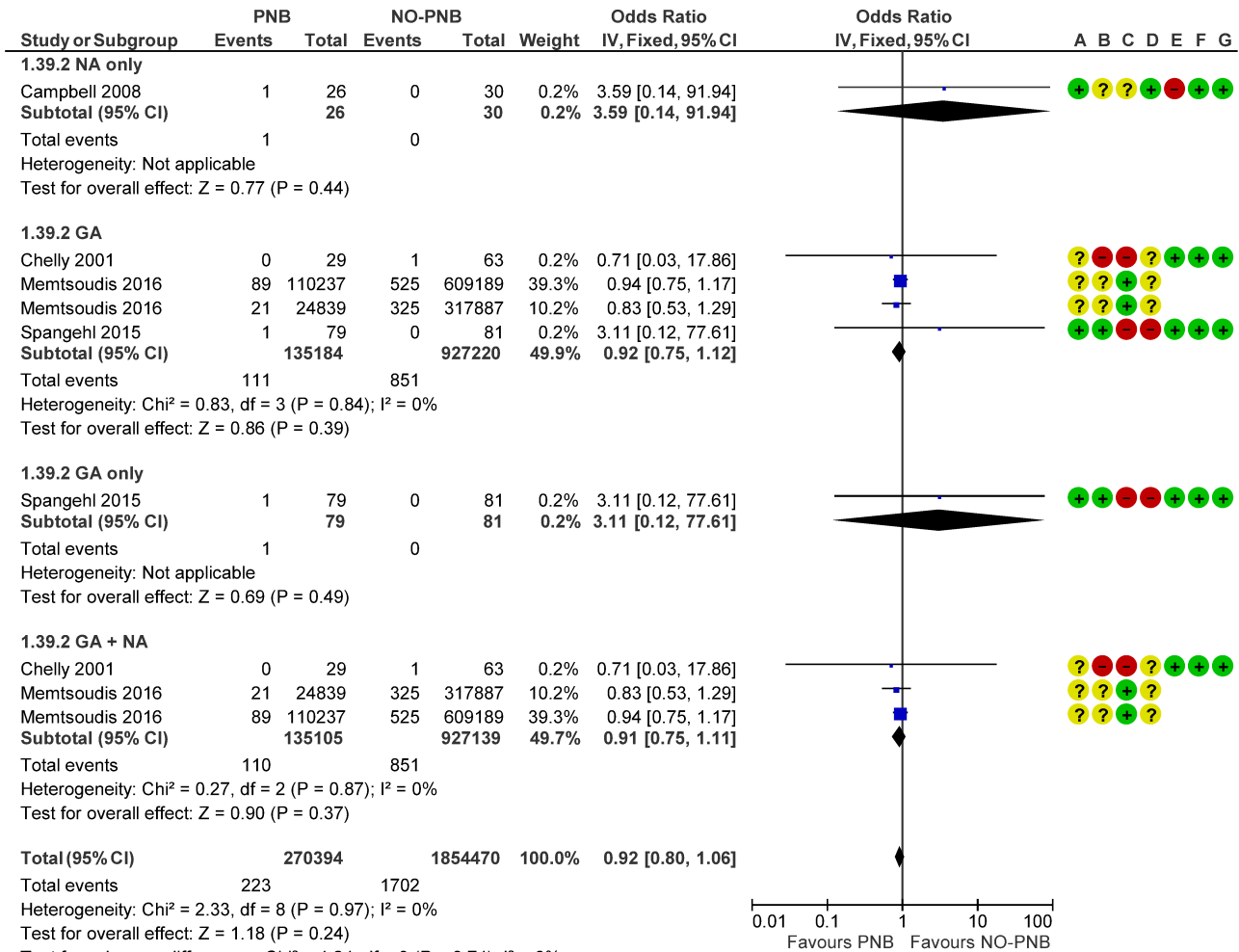
Risk of bias legend

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- (B) Allocation concealment (selection bias)
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- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.39 Stroke | GA/NA (THA/TKA)



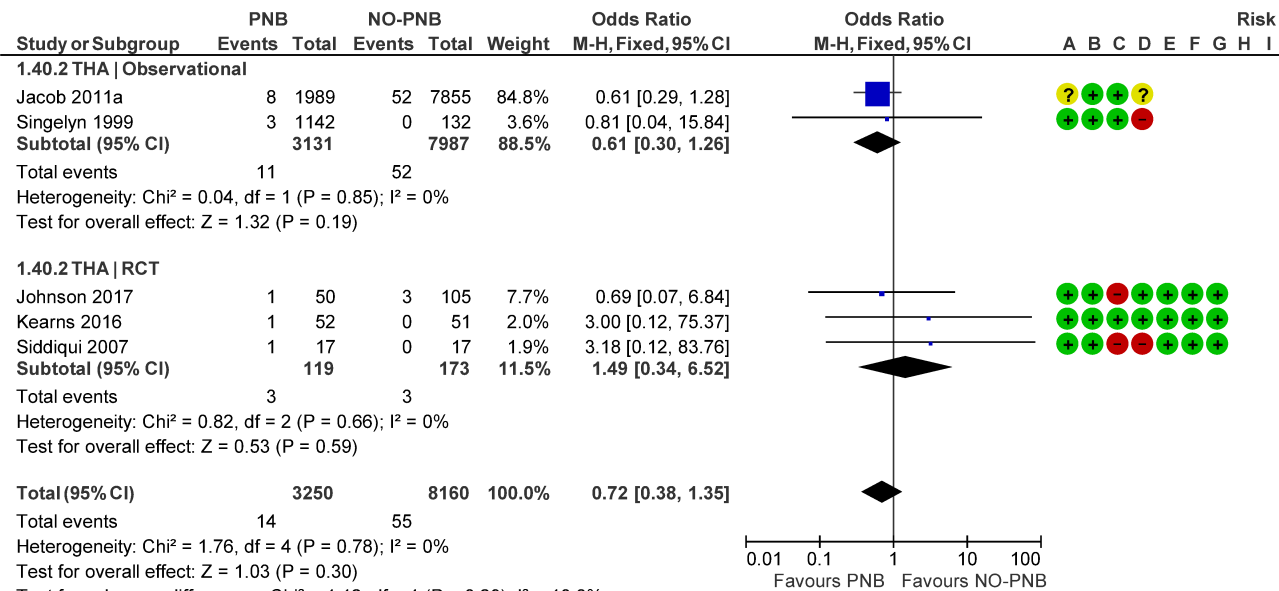
Risk of bias legend

- (A) Random sequence generation (selection bias)
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- (C) Blinding of participants and personnel (performance bias)
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- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.40 Perioperative Nerve Injury | THA



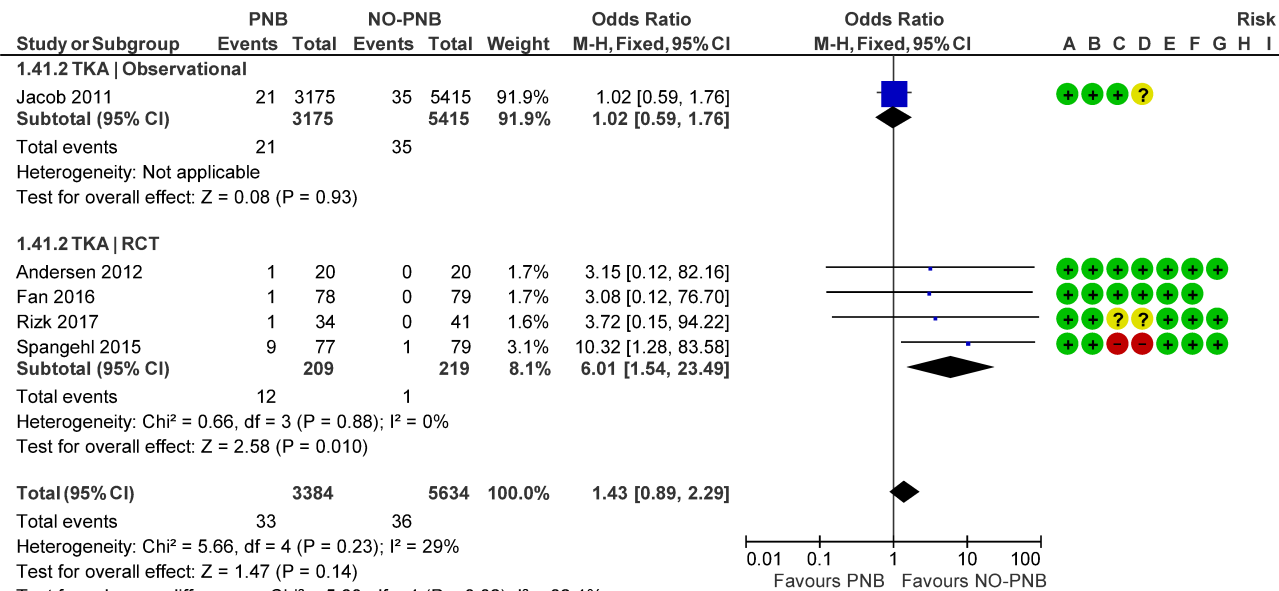
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.41 Perioperative Nerve Injury | TKA



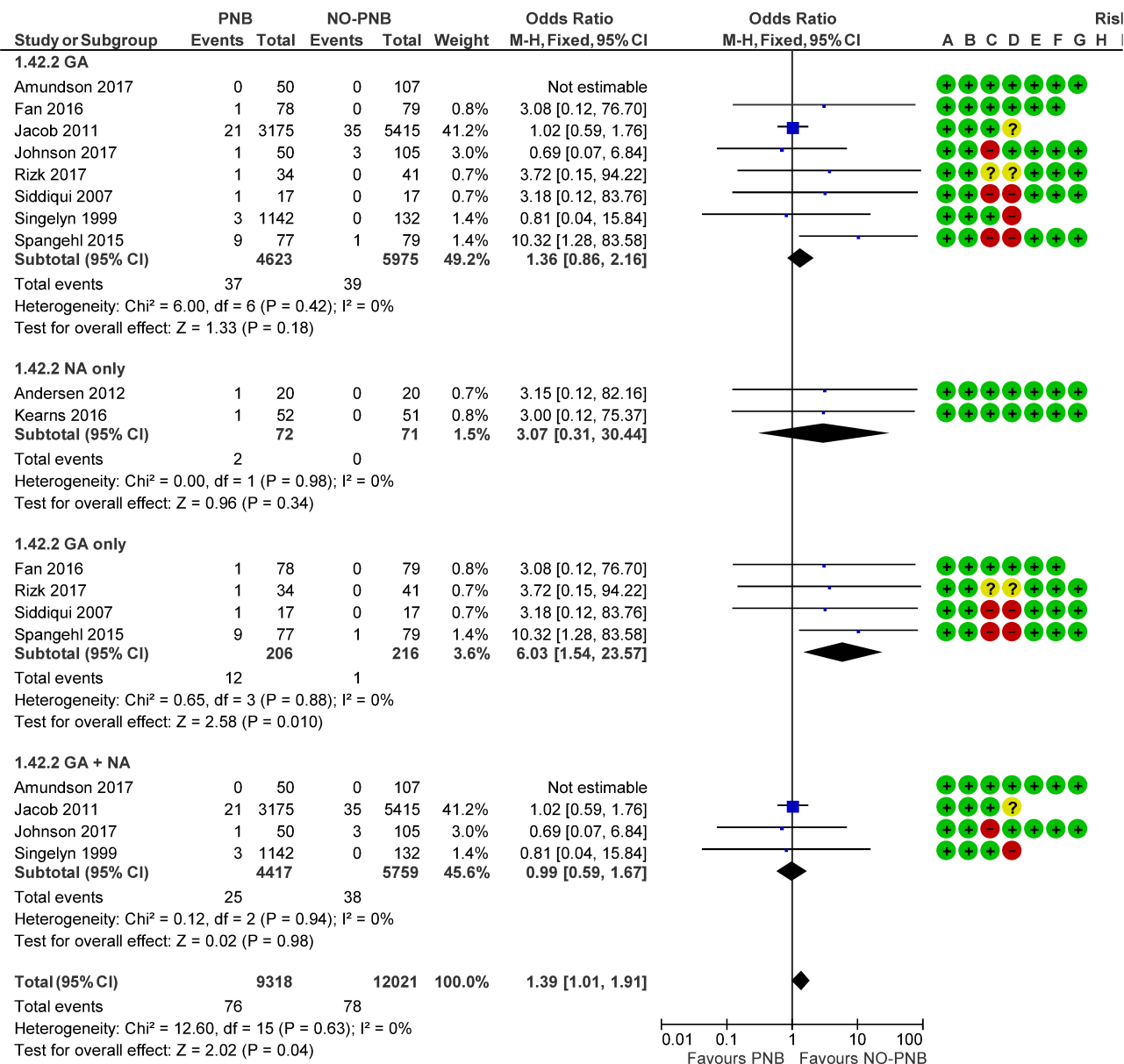
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.42 Perioperative Nerve Injury | GA/NA (THA/TKA)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation

PNB versus no PNB for THA/TKA

23-Feb-2021

(M) RCT: Sequence generation

(N) RCT: Other sources of bias

(O) RCT: Blinding of outcome assessors

(P) RCT: Blinding of participants and personnel

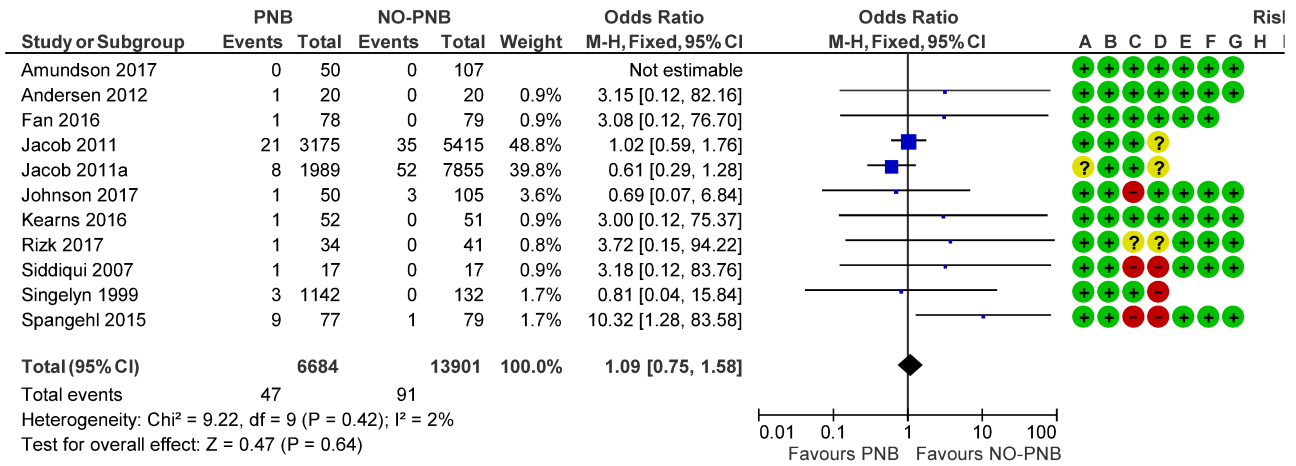
(Q) RCT: Allocation concealment

(R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.43 Perioperative Nerve Injury | Total



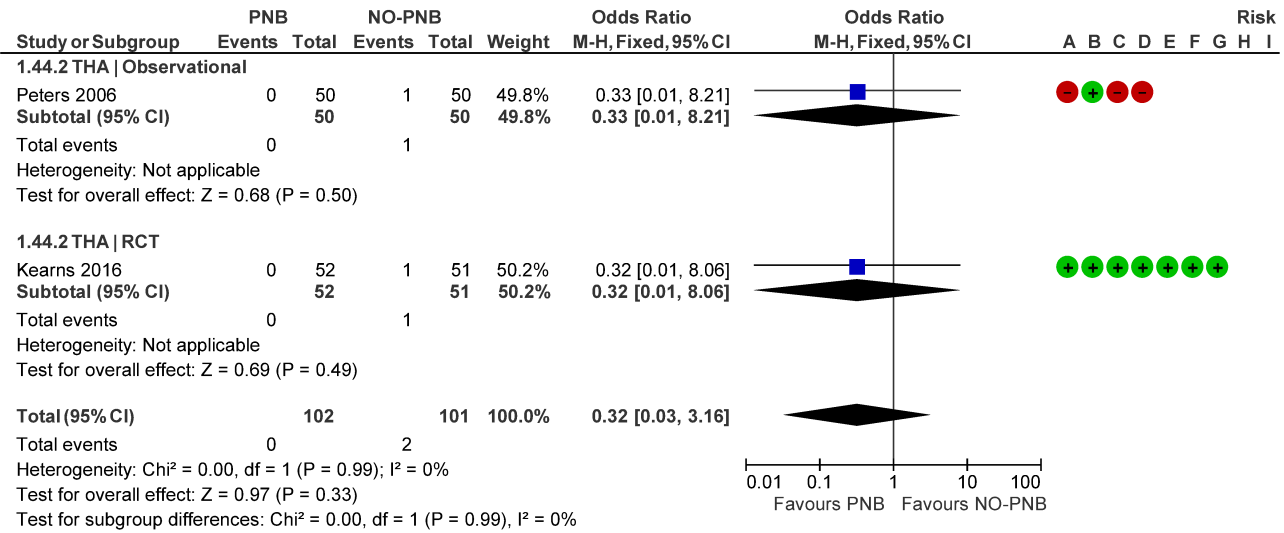
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.44 Sepsis | THA



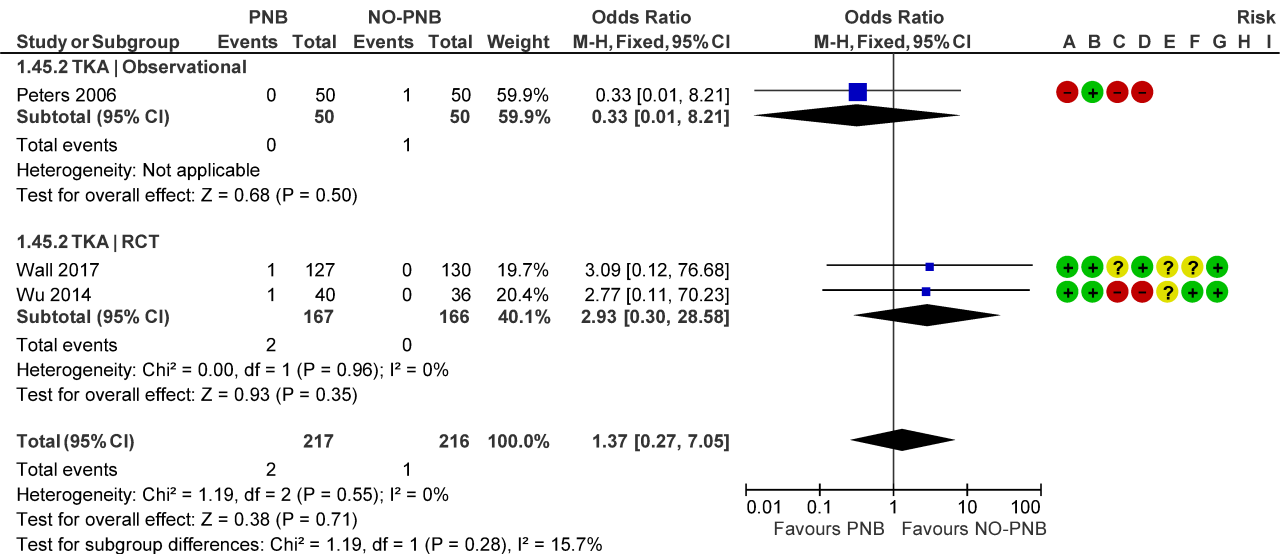
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.45 Sepsis | TKA



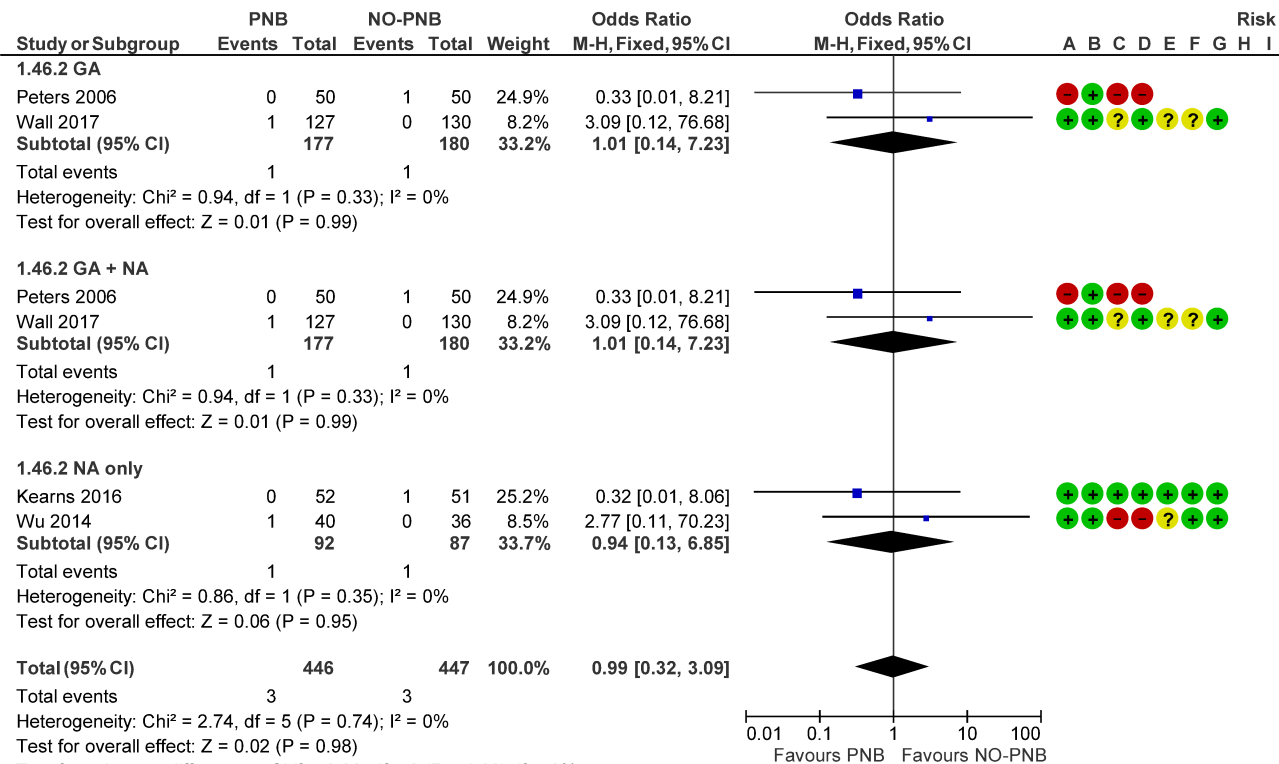
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.46 Sepsis | GA/NA (THA/TKA)



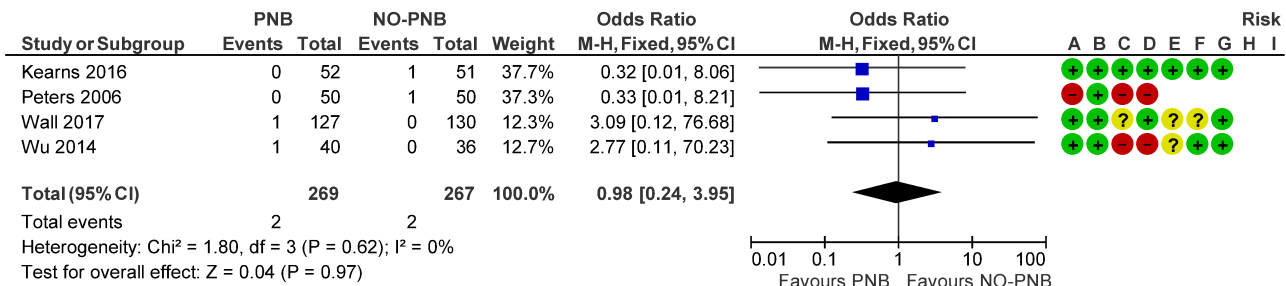
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.47 Sepsis | Total



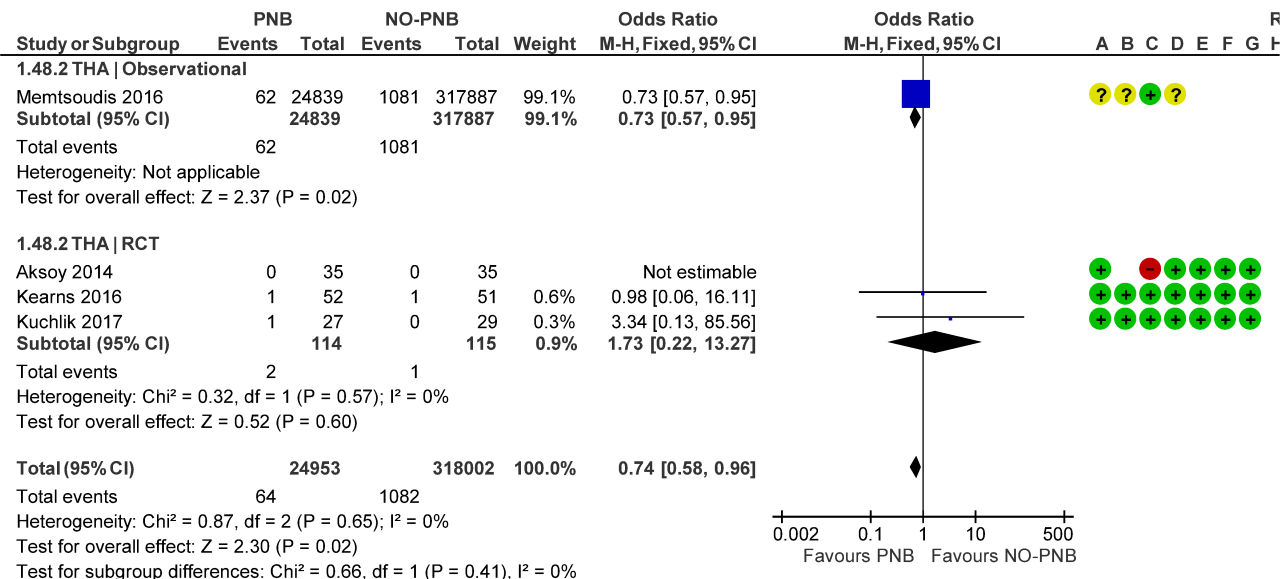
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.48 Thromboembolism (composite) | THA



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

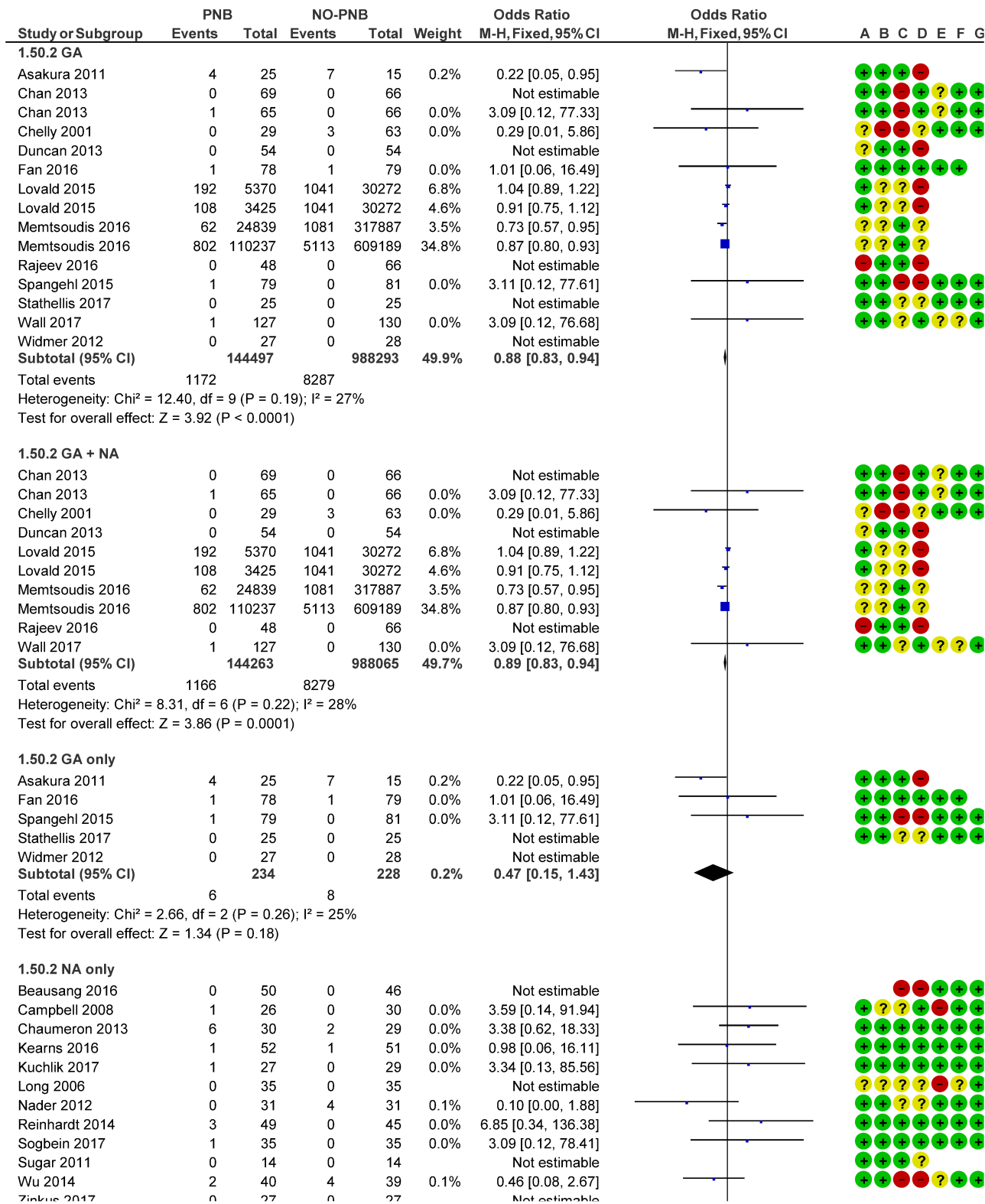
23-Feb-2021

(W) RCT: Allocation concealment
(R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.50 Thromboembolism (composite) | GA/NA (THA/TKA)



PNB versus no PNB for THA/TKA

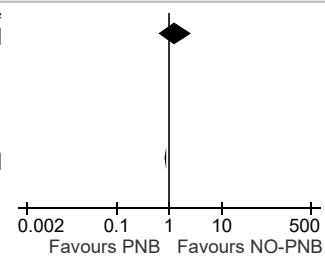
23-Feb-2021

Subtotal (95% CI)	n	N	OR	95% CI
Subtotal (95% CI)	416	411	0.3%	1.30 [0.63, 2.69]

Total events 15 11
 Heterogeneity: $\text{Chi}^2 = 7.70$, $\text{df} = 7$ ($P = 0.36$); $I^2 = 9\%$
 Test for overall effect: $Z = 0.70$ ($P = 0.48$)

Total (95% CI)	289410	1976997	100.0%	0.88 [0.85, 0.92]
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Total events 2359 16585
 Heterogeneity: $\text{Chi}^2 = 33.59$, $\text{df} = 27$ ($P = 0.18$); $I^2 = 20\%$
 Test for overall effect: $Z = 5.50$ ($P < 0.00001$)
 Test for subgroup differences: $\text{Chi}^2 = 2.33$, $\text{df} = 3$ ($P = 0.51$), $I^2 = 0\%$

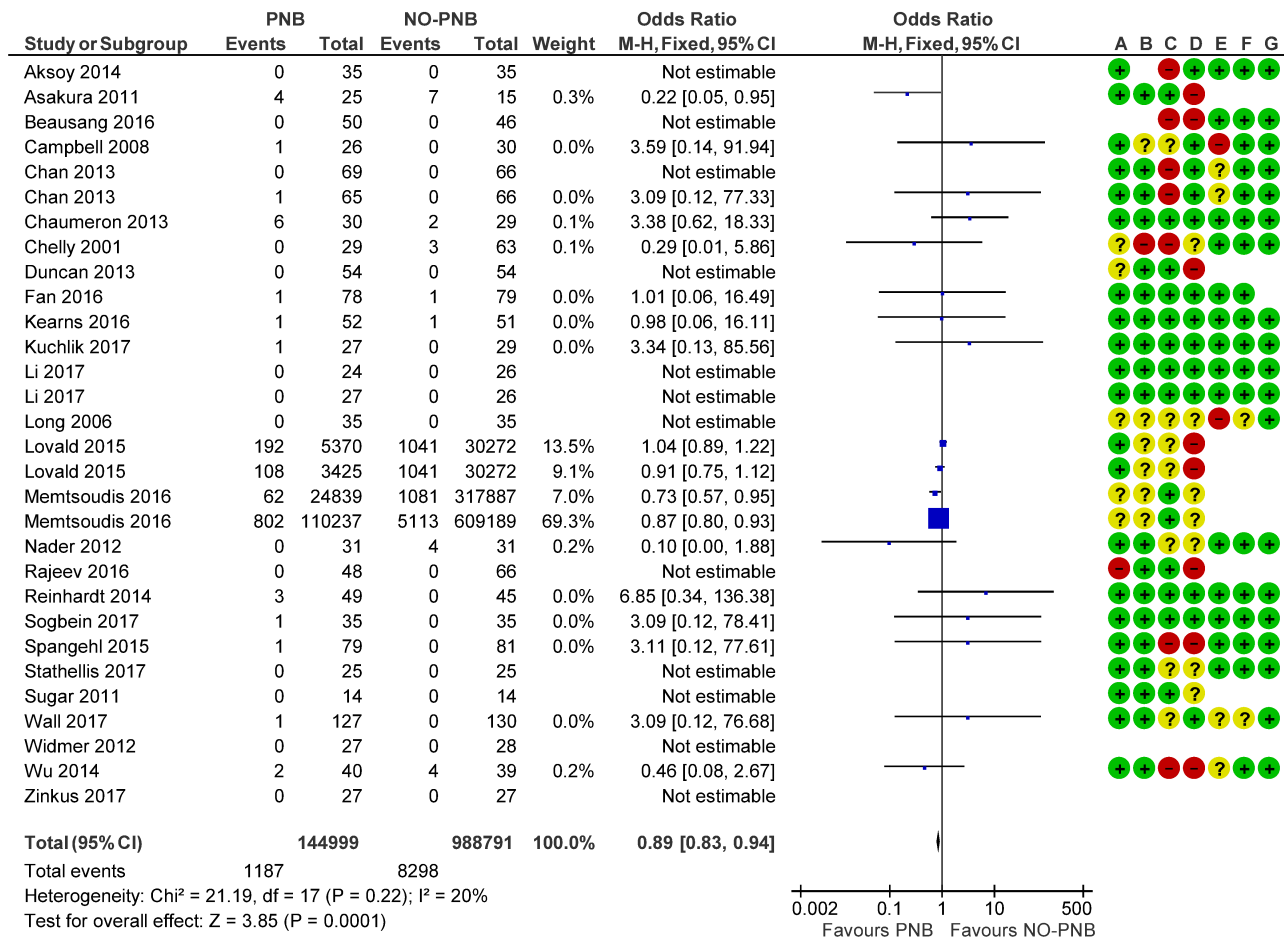
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.51 Thromboembolism (composite) | Total



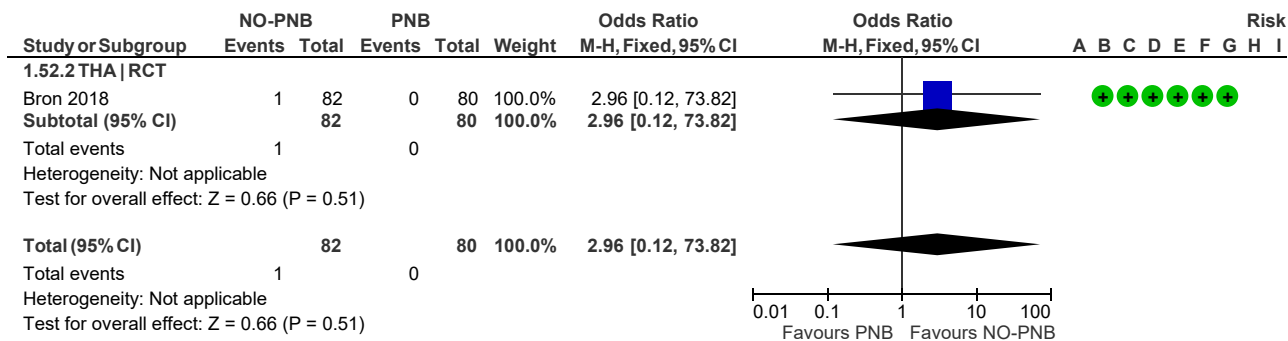
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.52 Hematoma | THA



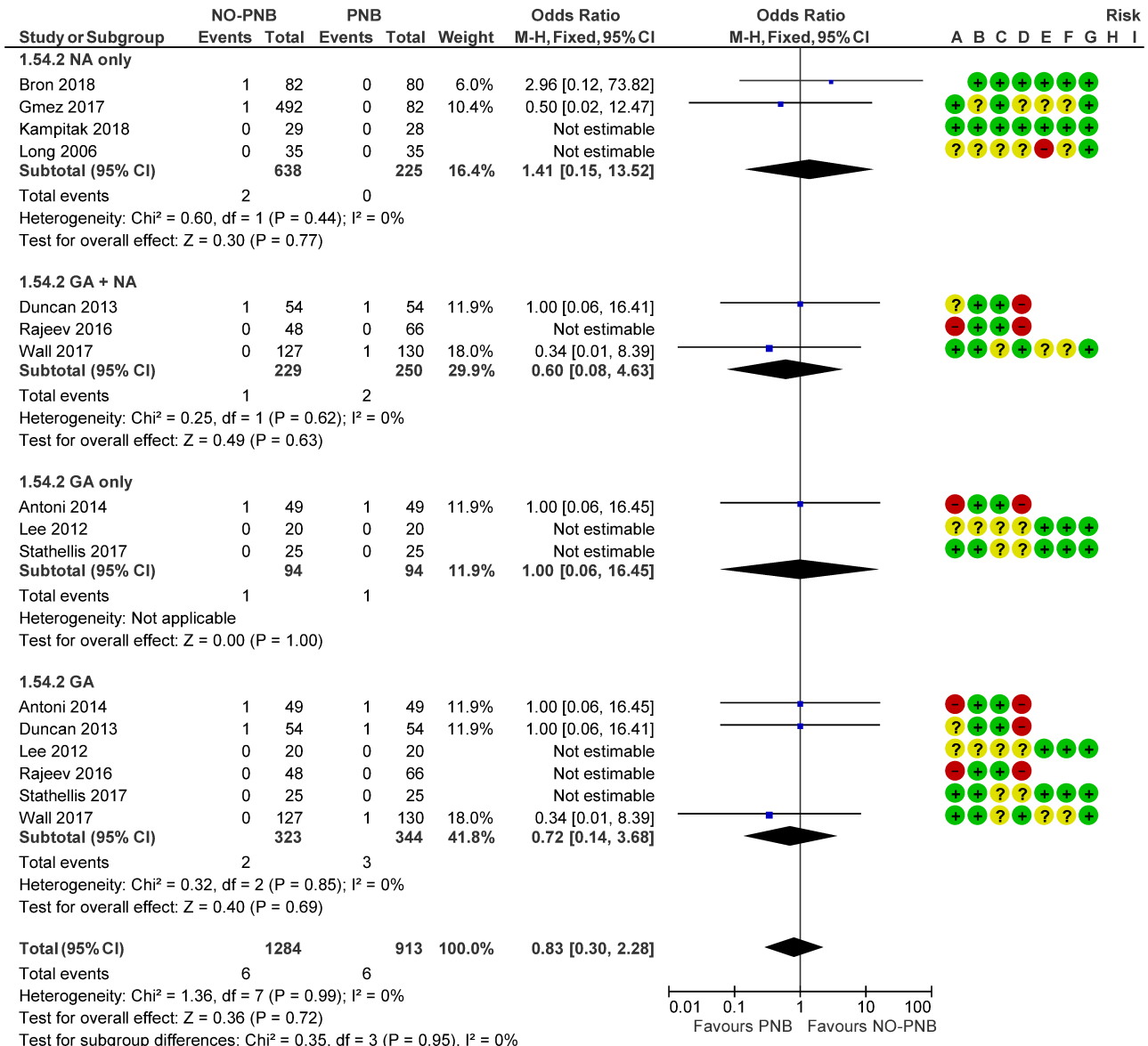
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.54 Hematoma | GA/NA (THA/TKA)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessment

PNB versus no PNB for THA/TKA

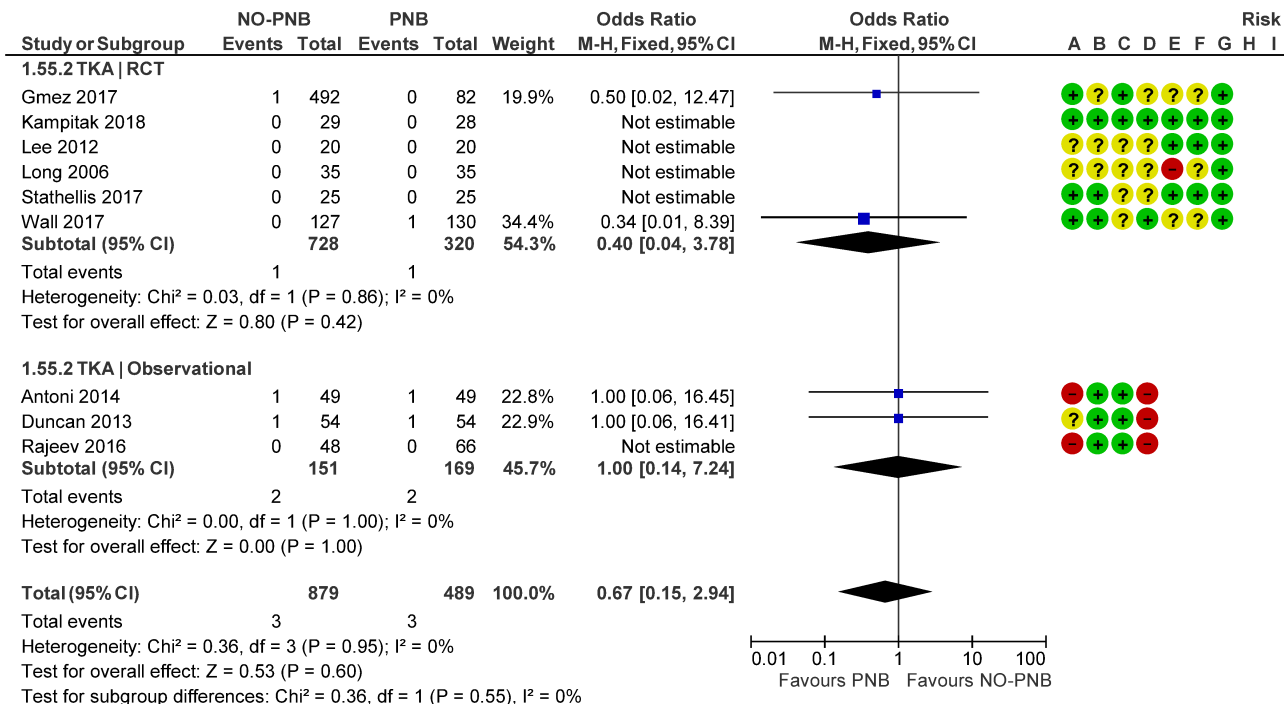
23-Feb-2021

- (U) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.55 Hematoma | TKA



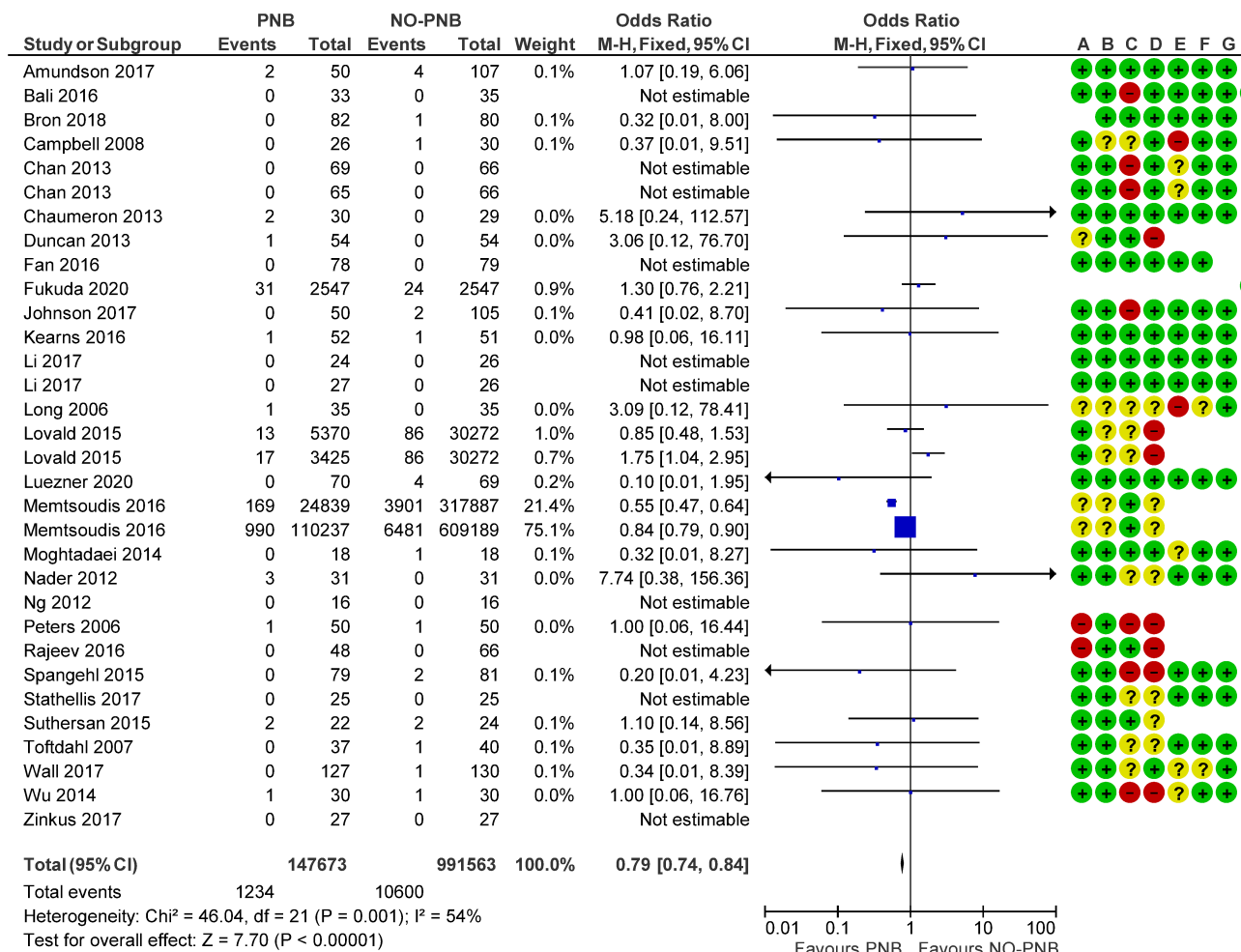
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.56 Surgical site infection | Total



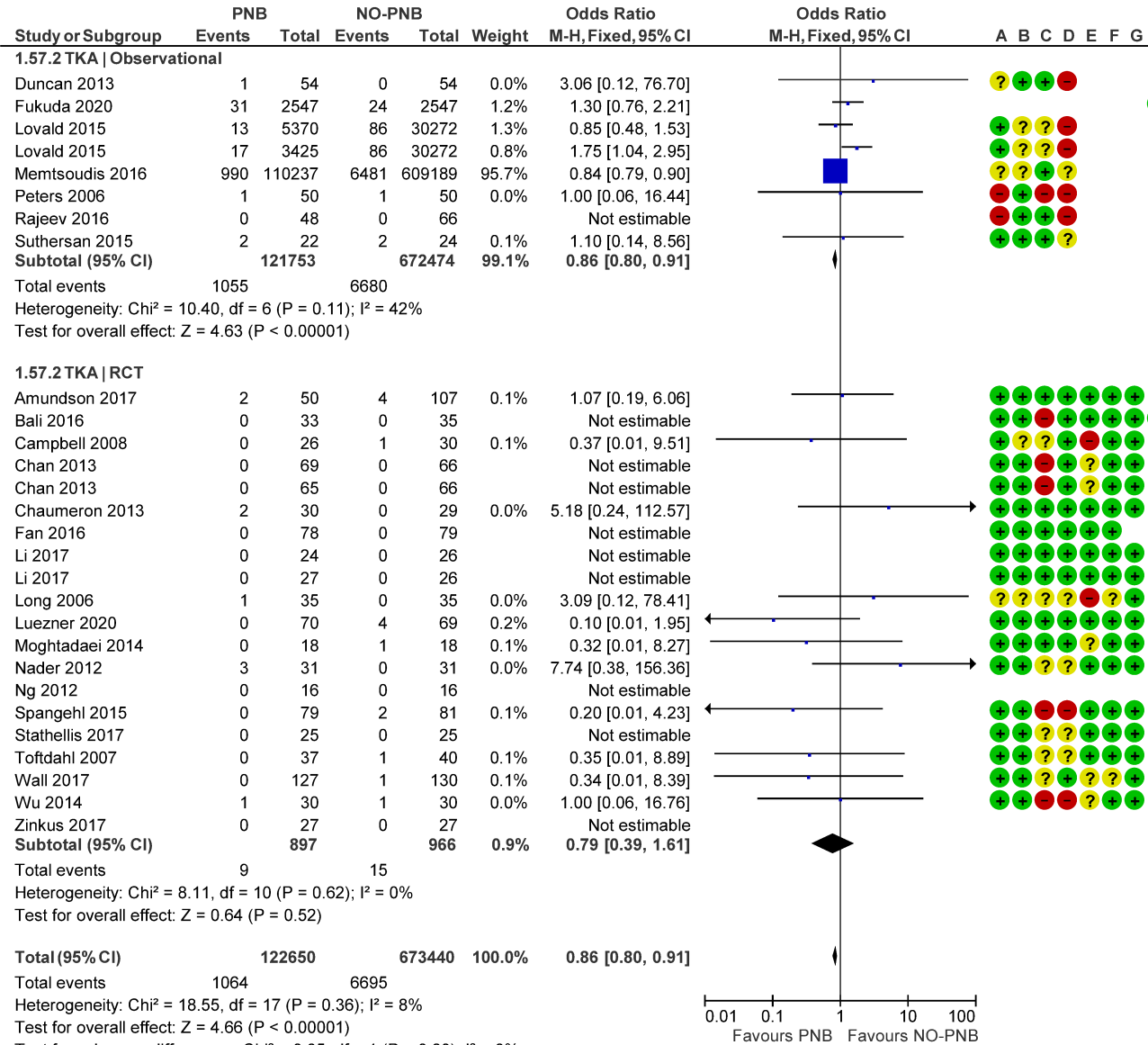
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.57 Surgical site infection | TKA



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessment

PNB versus no PNB for THA/TKA

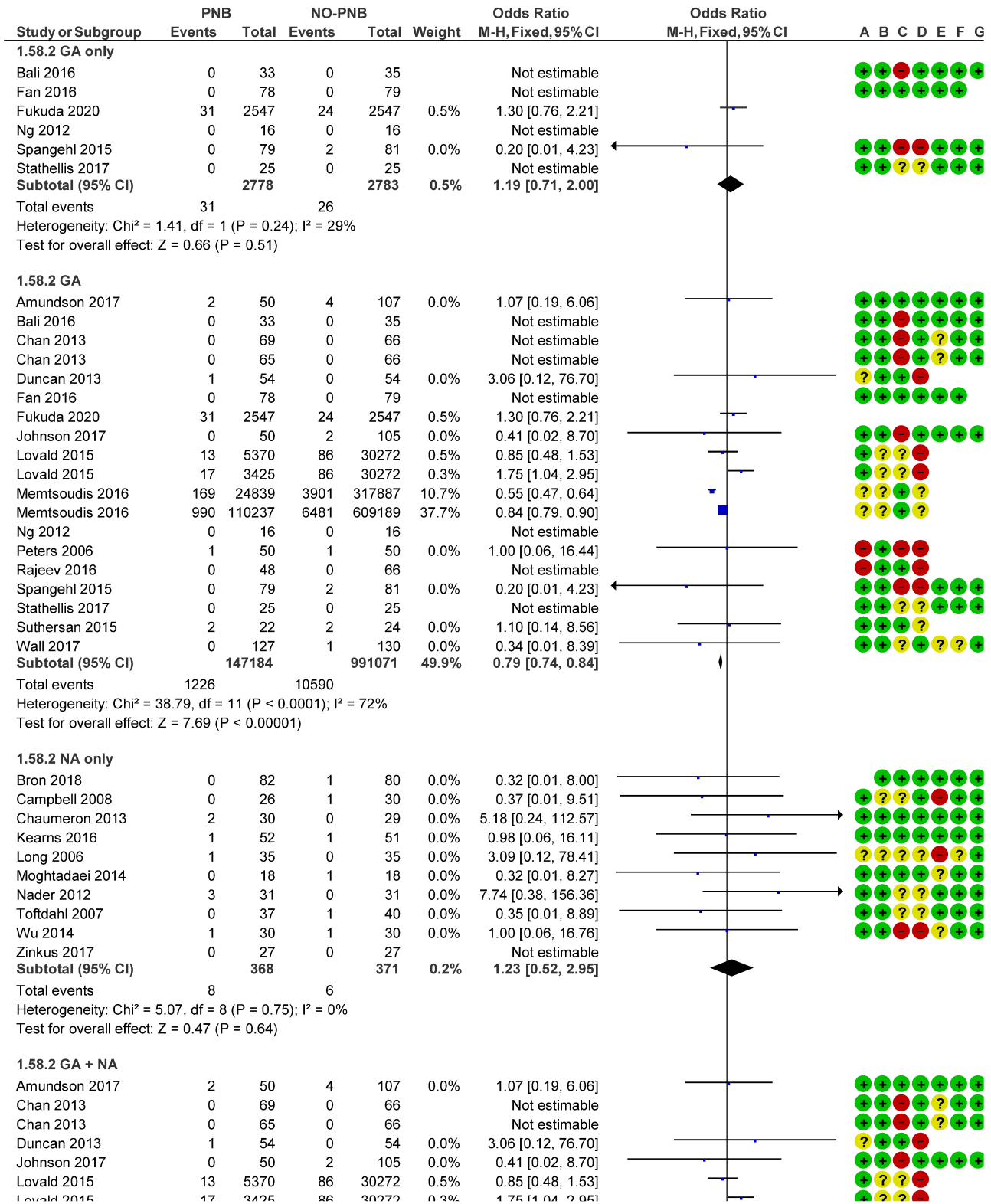
23-Feb-2021

- (U) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

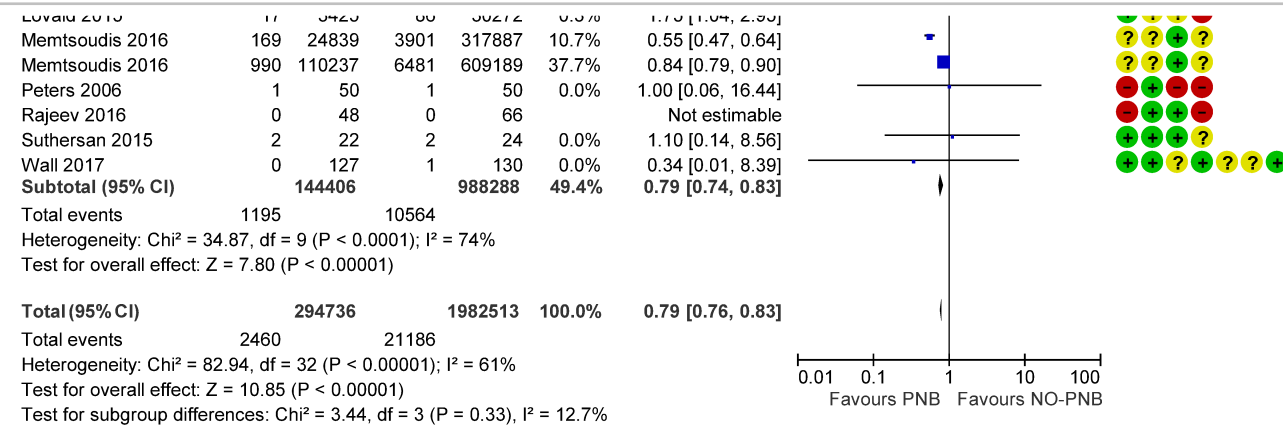
23-Feb-2021

1.58 Surgical site infection | GA/NA (THA/TKA)



PNB versus no PNB for THA/TKA

23-Feb-2021



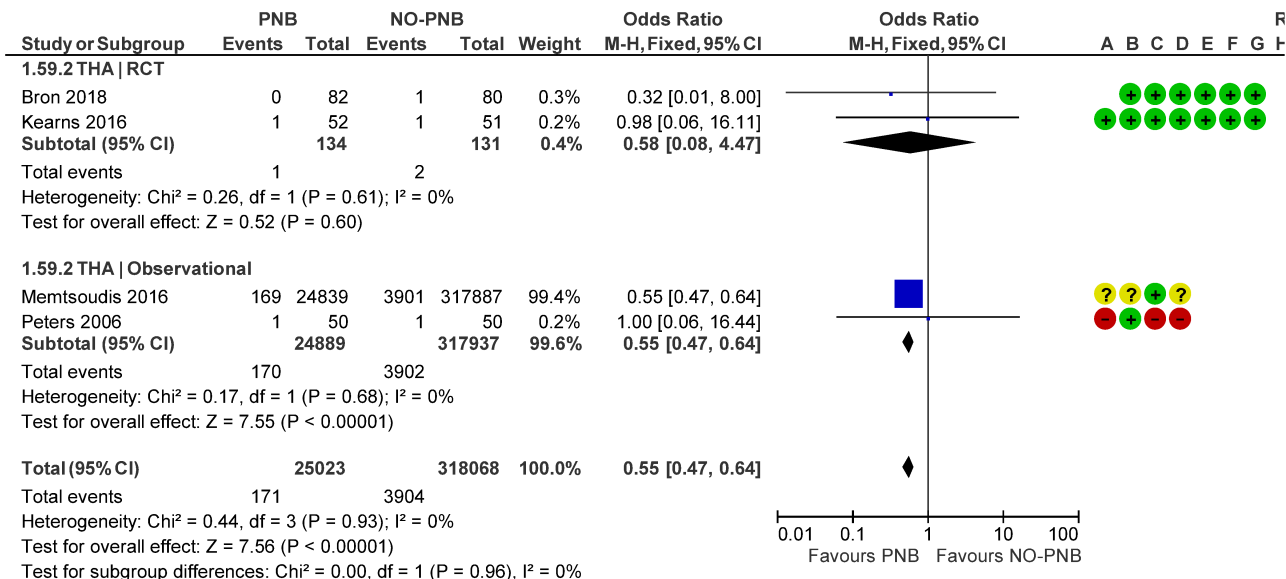
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.59 Surgical site infection | THA



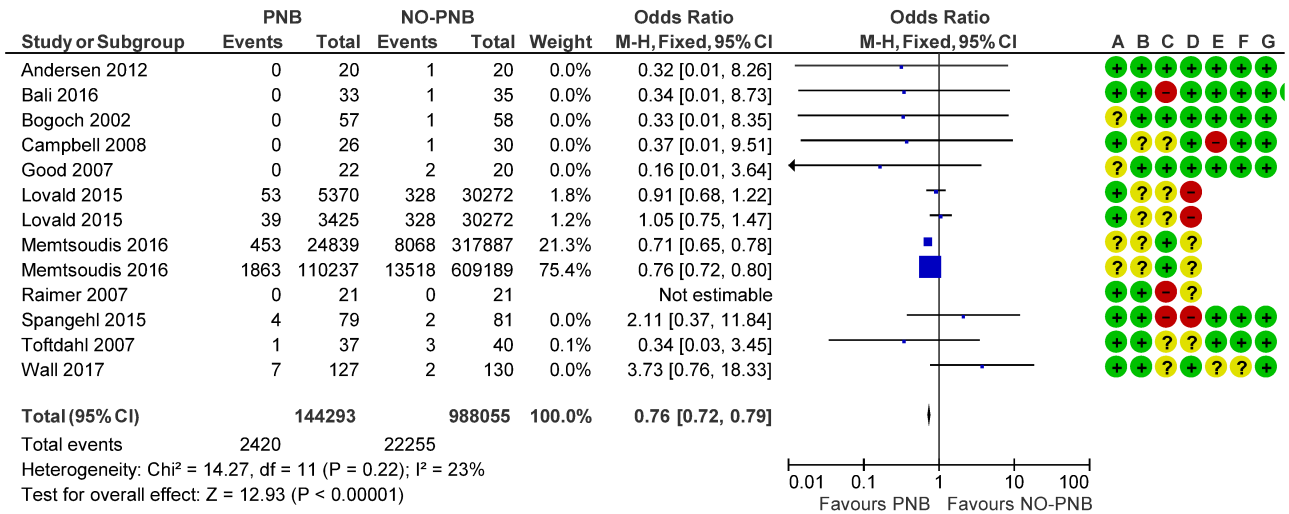
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.60 Infection (composite) | Total



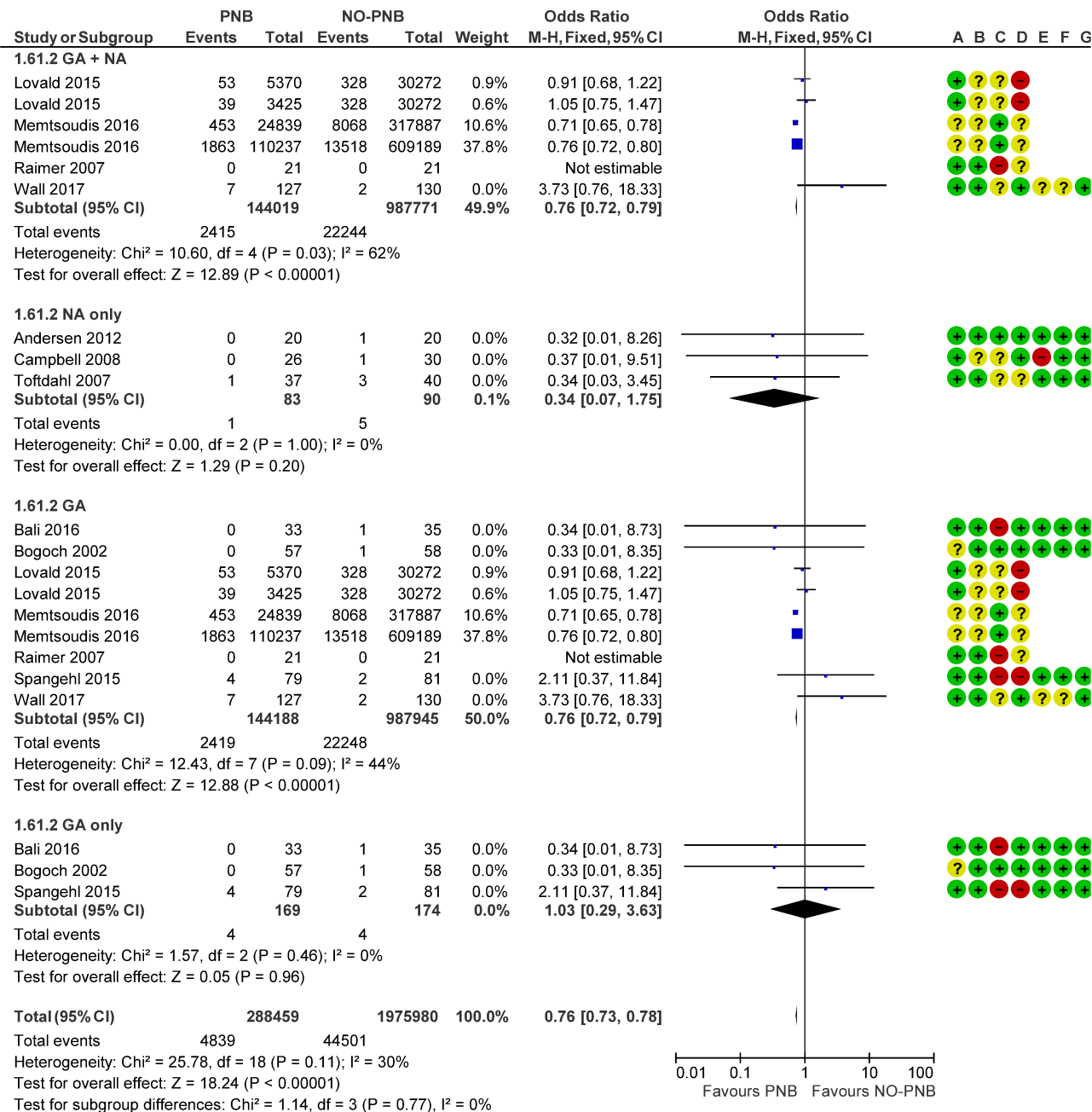
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.61 Infection (composite) | GA/NA (THA/TKA)



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up

PNB versus no PNB for THA/TKA

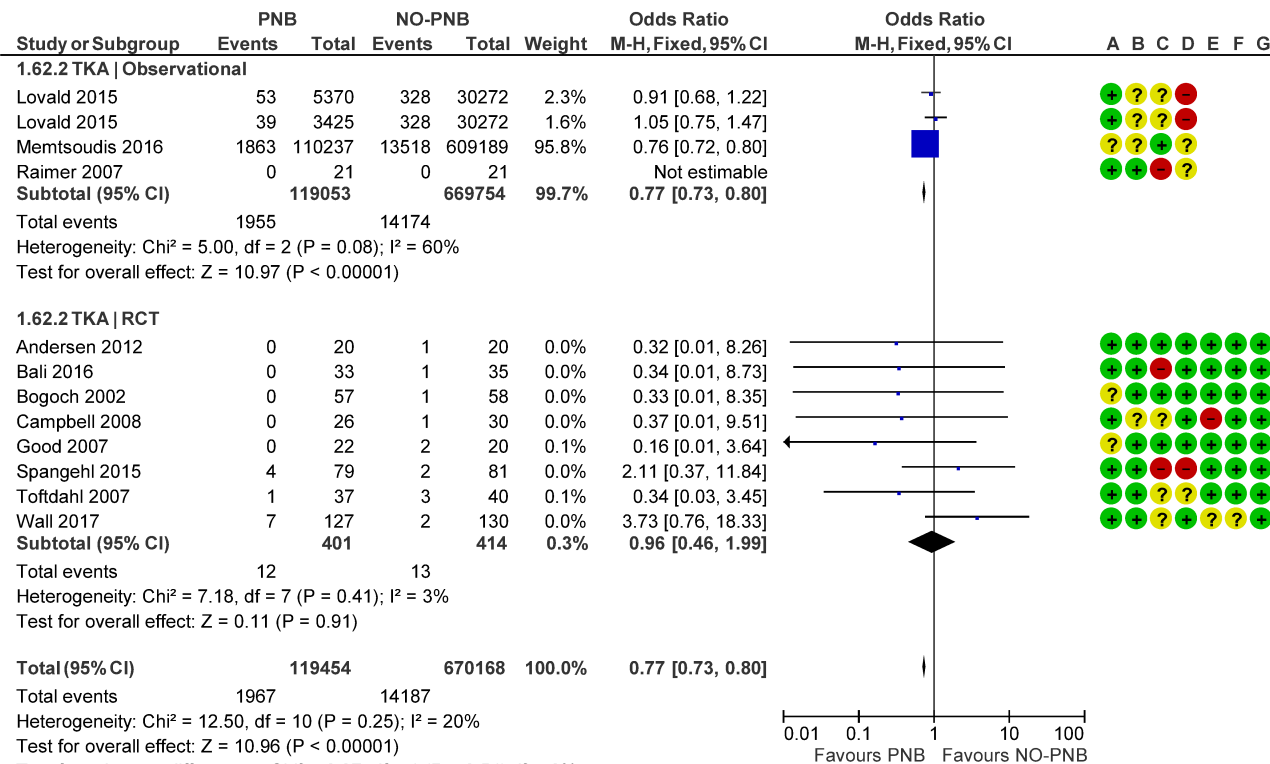
23-Feb-2021

- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.62 Infection (composite) | TKA



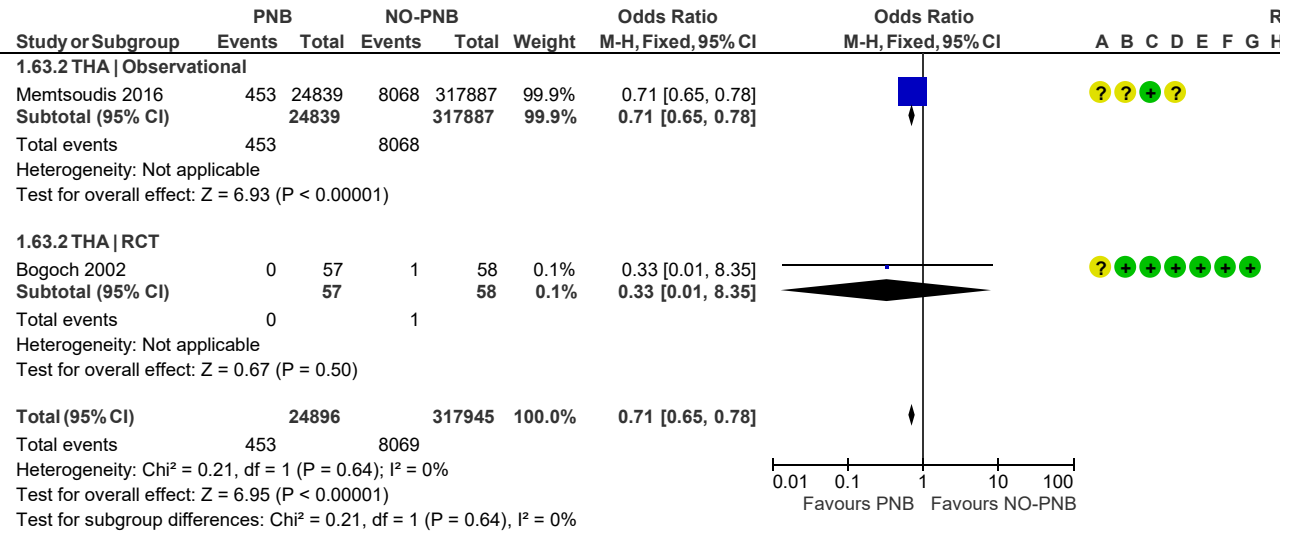
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.63 Infection (composite) | THA



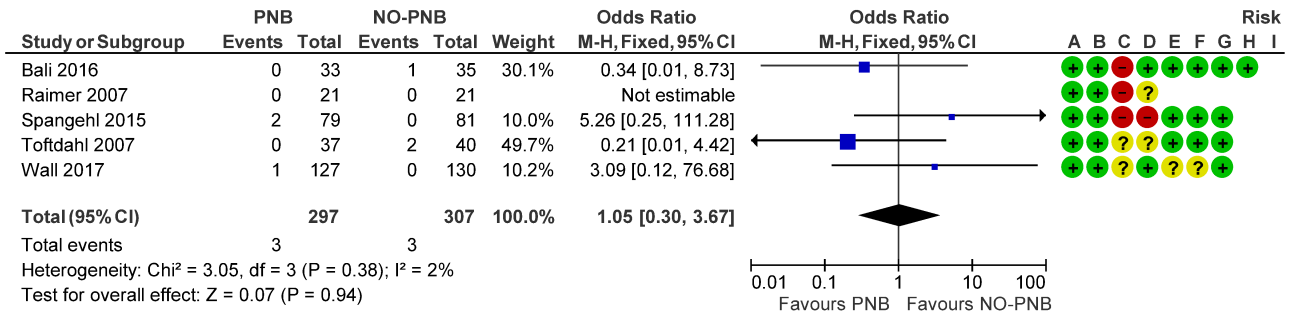
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.64 Urinary tract infection | Total

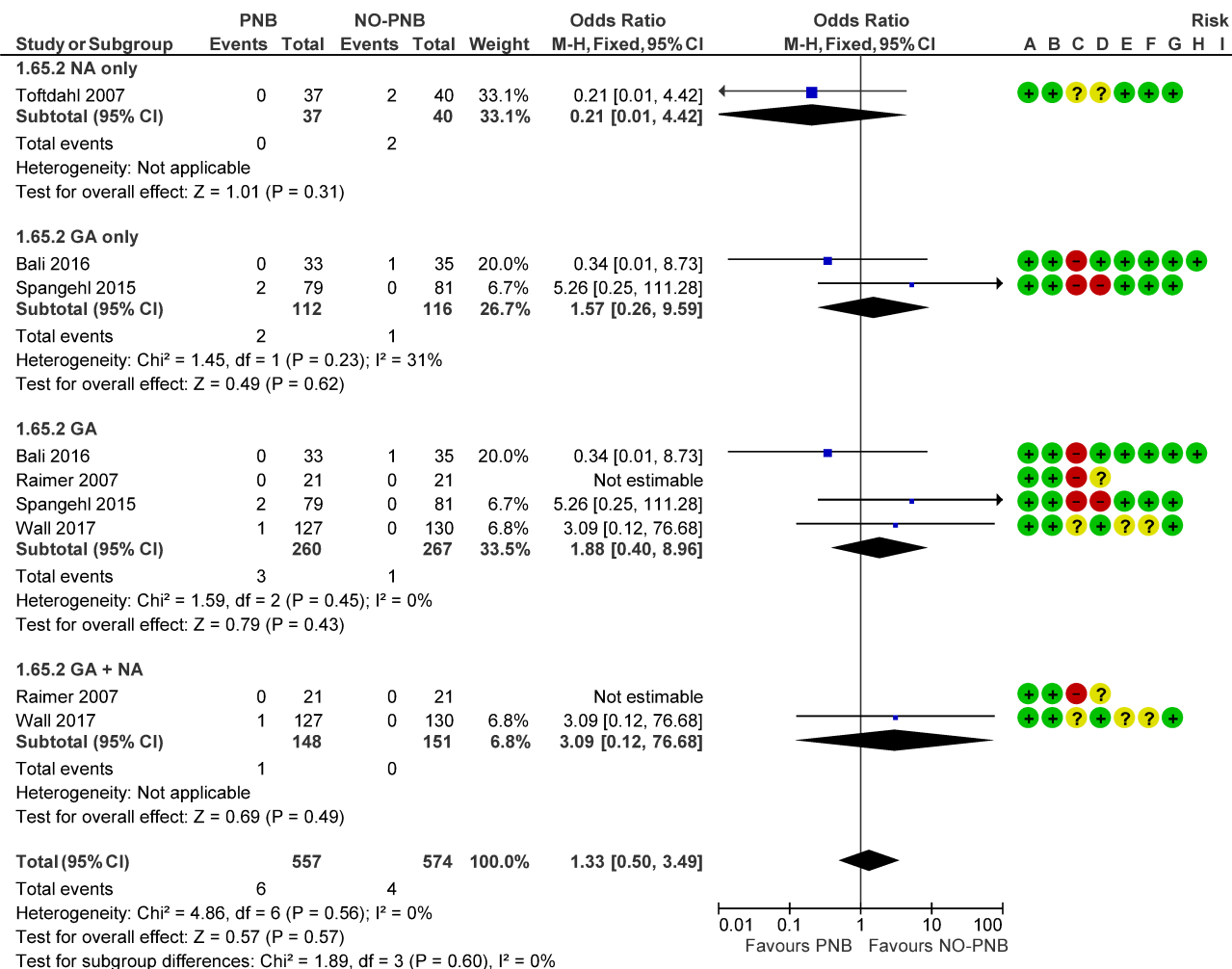
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.65 Urinary tract infection | GA/NA (THA/TKA)



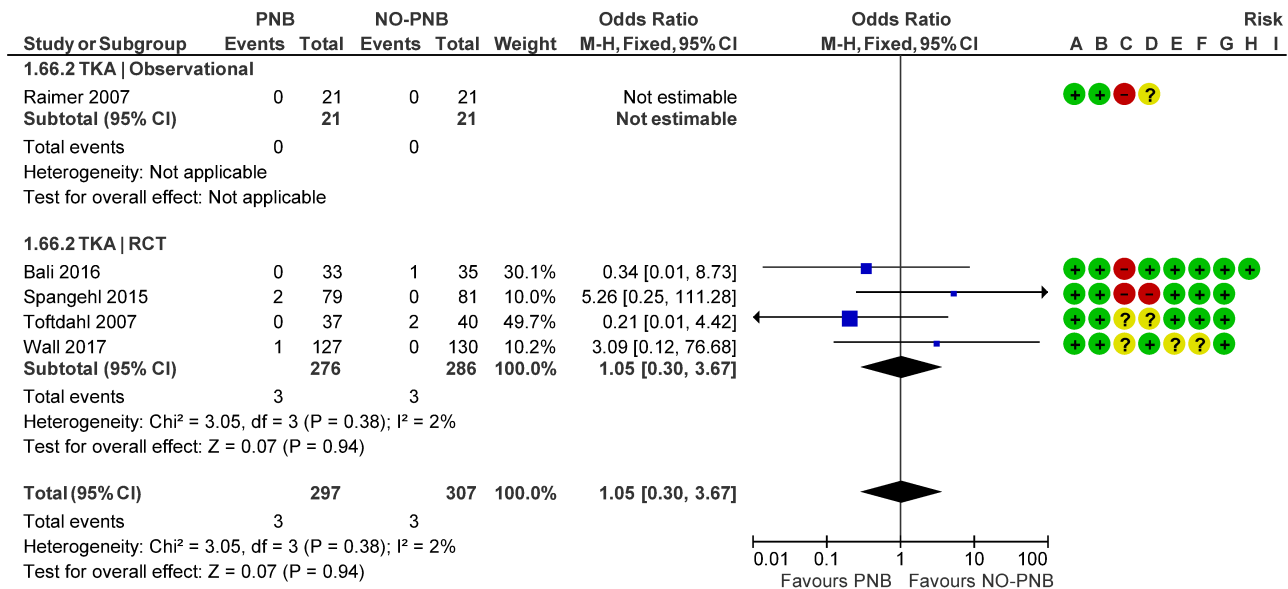
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.66 Urinary tract infection | TKA



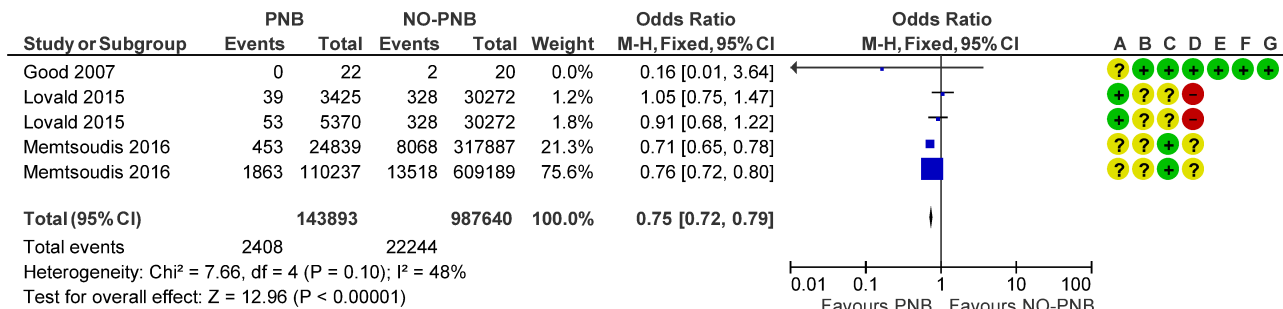
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.67 Infection | Total



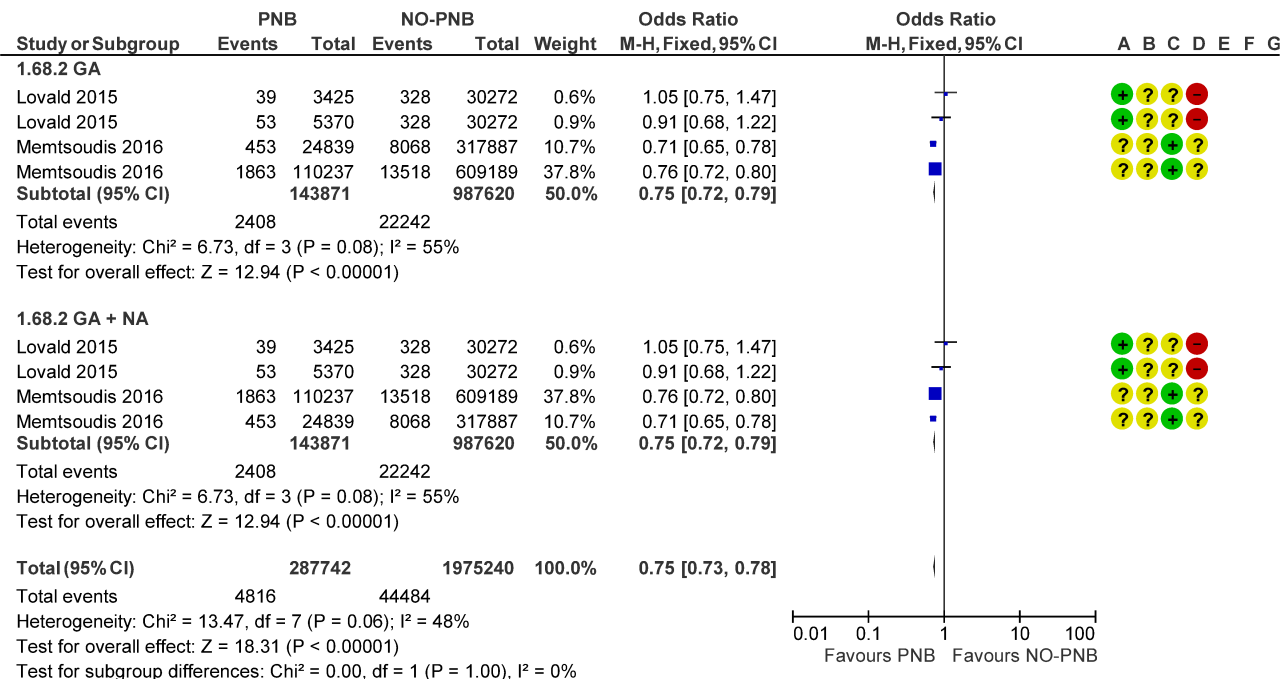
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.68 Infection | GA/NA (THA/TKA)



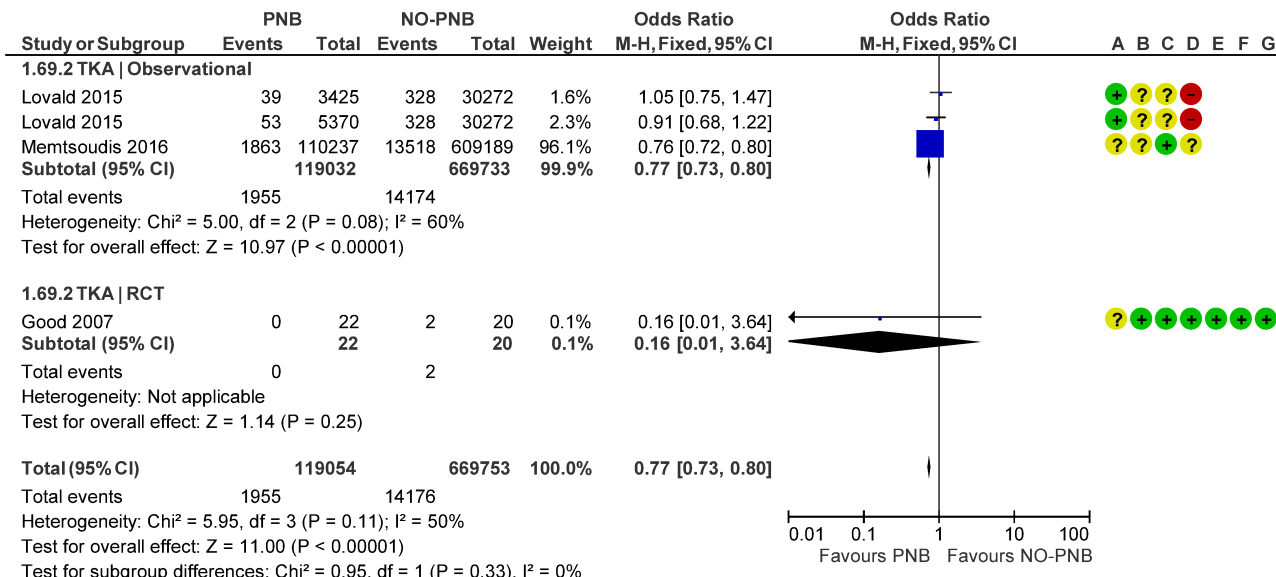
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.69 Infection | TKA



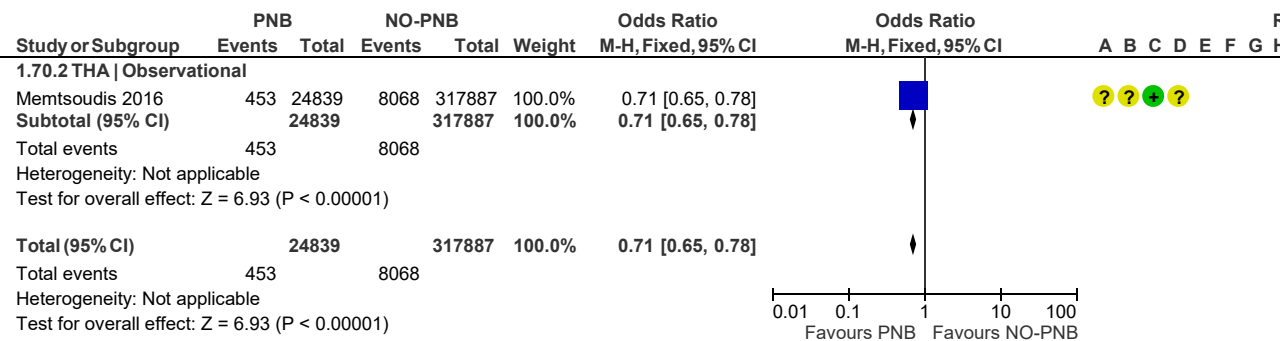
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
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- (L) RCT: Selective outcome reporting
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- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.70 Infection | THA



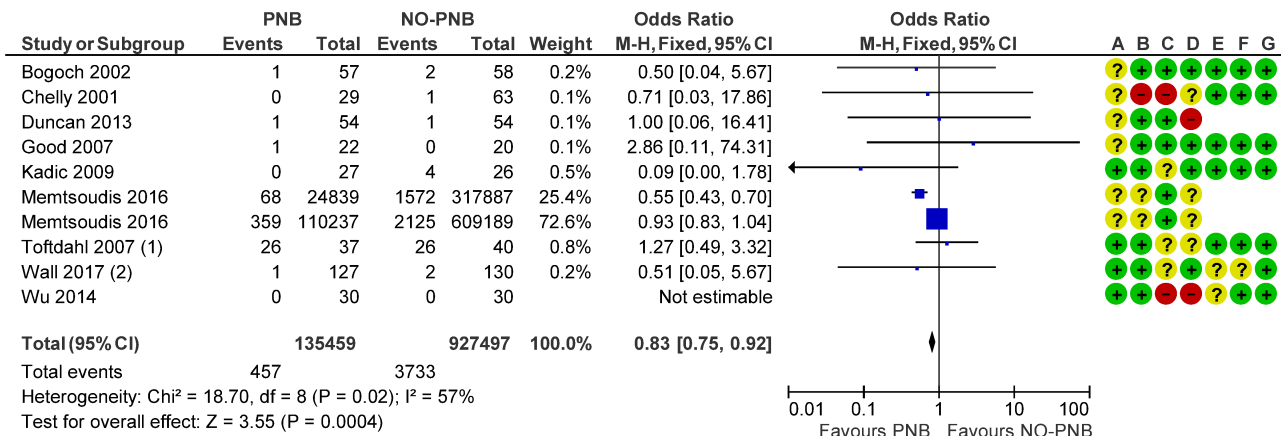
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (G) Other bias
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.71 Gastrointestinal complications (composite) | Total



Footnotes

- (1) Constipation + Ulcer
- (2) Ileus

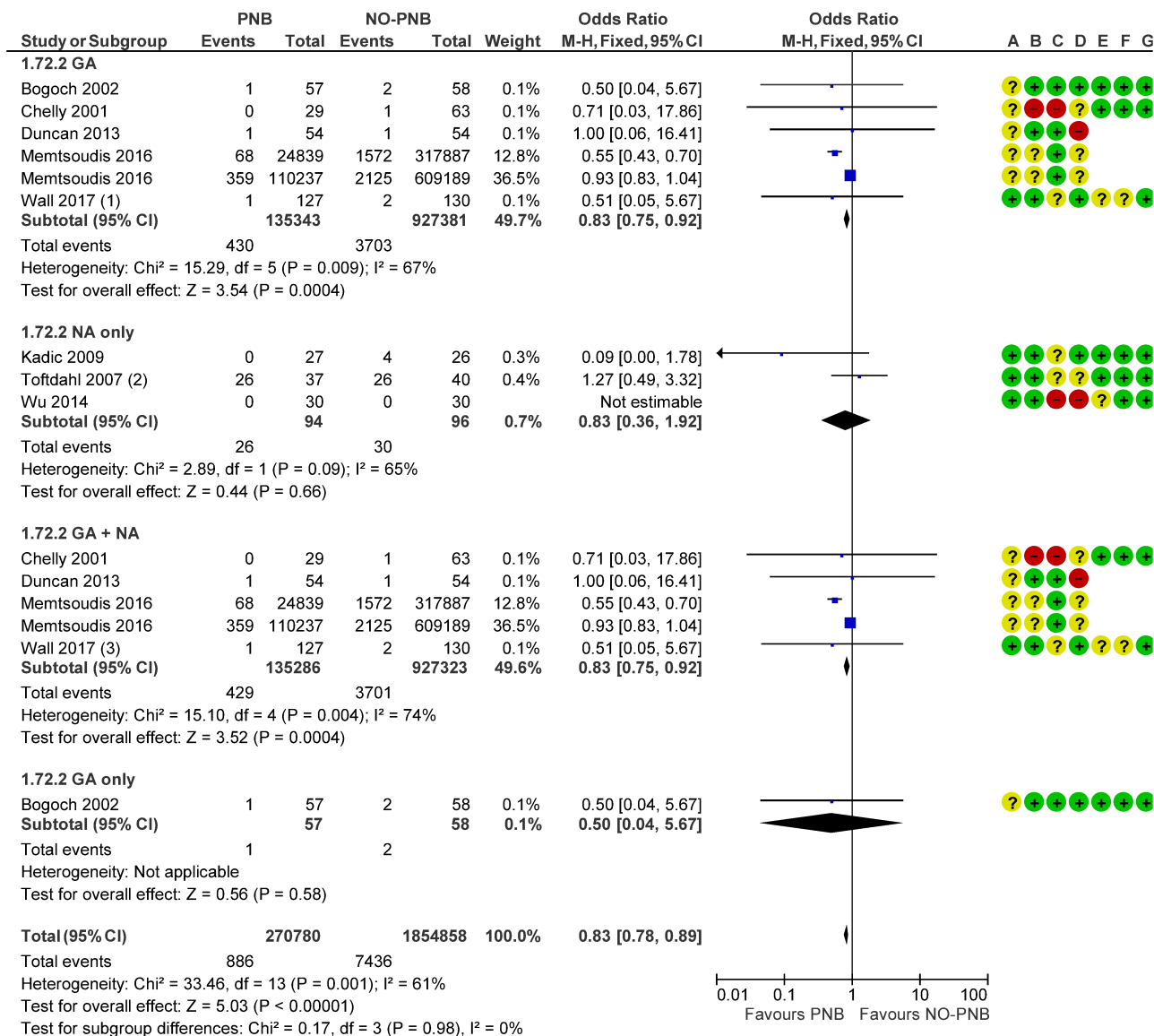
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate
- (I) Observational Study: Flawed measurement of exposure
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.72 Gastrointestinal complications (composite) | GA/NA (THA/TKA)



Footnotes

- (1) Ileus
- (2) Constipation + Ulcer
- (3) Ileus

Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate
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- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel

PNB versus no PNB for THA/TKA

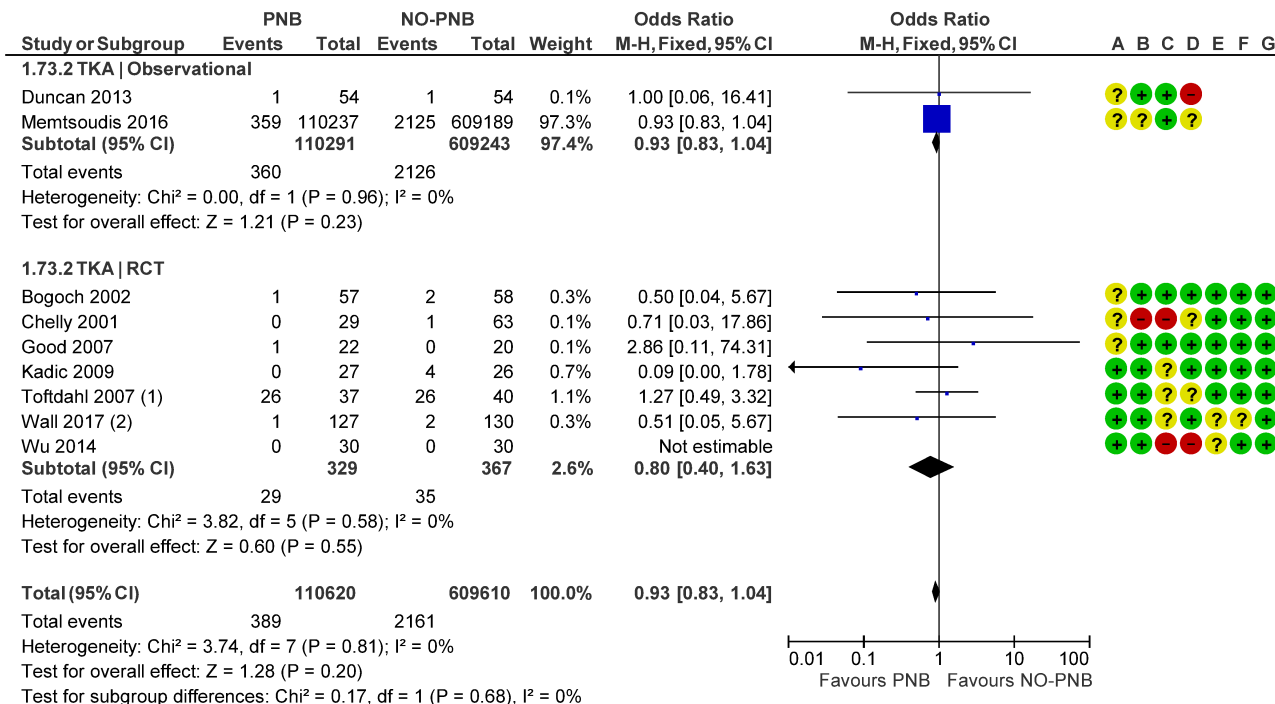
23-Feb-2021

- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.73 Gastrointestinal complications (composite) | TKA



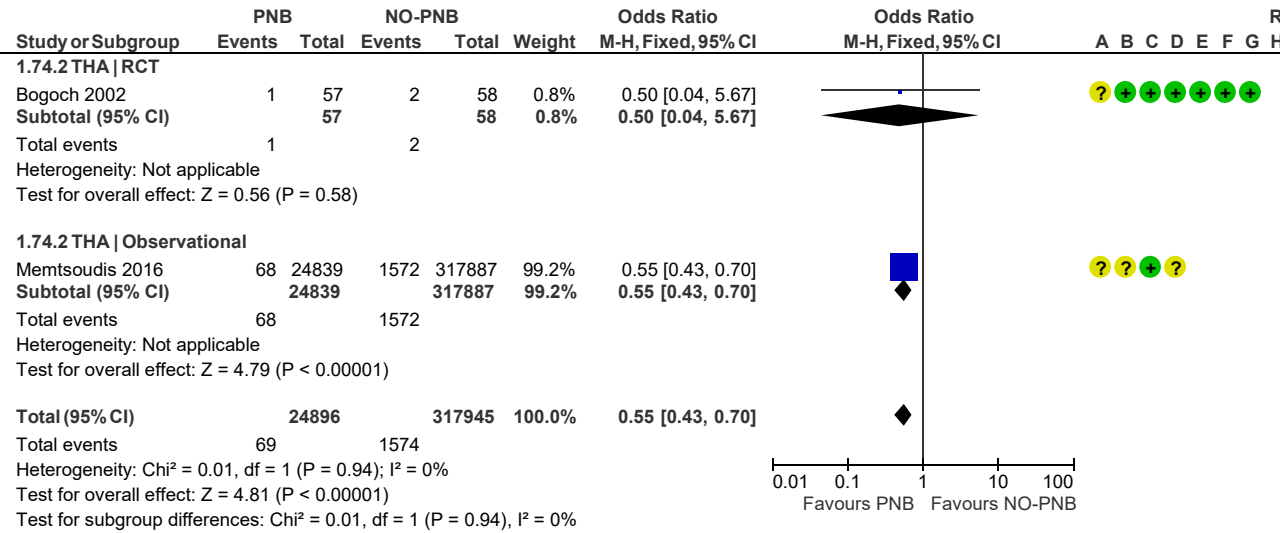
Footnotes
 (1) Constipation + Ulcer
 (2) Ileus

- Risk of bias legend**
- (A) Random sequence generation (selection bias)
 - (B) Allocation concealment (selection bias)
 - (C) Blinding of participants and personnel (performance bias)
 - (D) Blinding of outcome assessment (detection bias)
 - (E) Incomplete outcome data (attrition bias)
 - (F) Selective reporting (reporting bias)
 - (G) Other bias
 - (H) Observational Study: Failure to develop and apply appropriate
 - (I) Observational Study: Flawed measurement of exposure or
 - (J) Observational Study: Incomplete follow-up
 - (K) Observational Study: Failure to adequately control for confounding
 - (L) RCT: Selective outcome reporting
 - (M) RCT: Sequence Generation
 - (N) RCT: Other sources of bias
 - (O) RCT: Blinding of outcome assessors
 - (P) RCT: Blinding of participants and personnel
 - (Q) RCT: Allocation concealment
 - (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.74 Gastrointestinal complications (composite) | THA



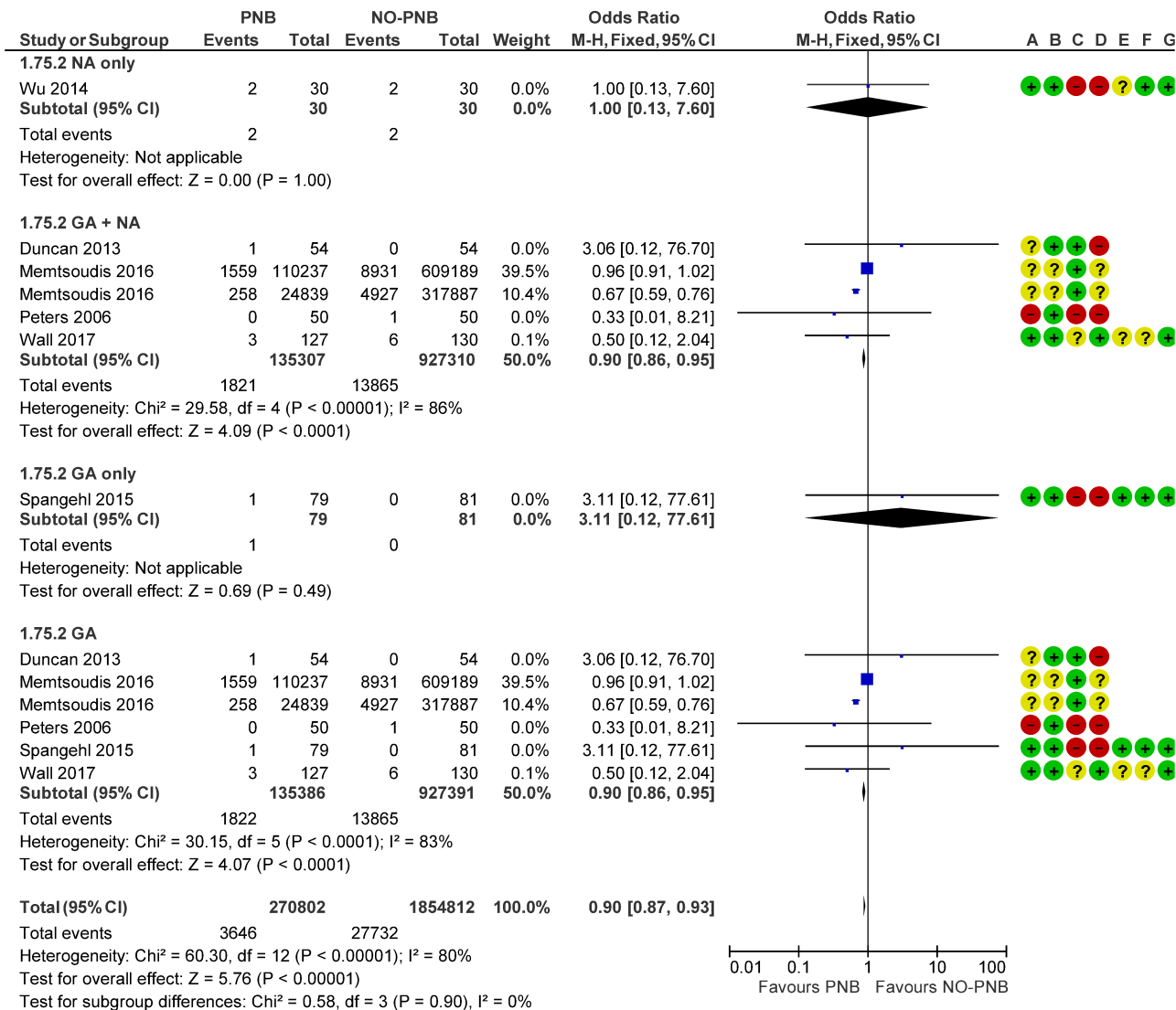
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.75 Renal complications (composite) | GA/NA (THA/TKA)



Risk of bias legend

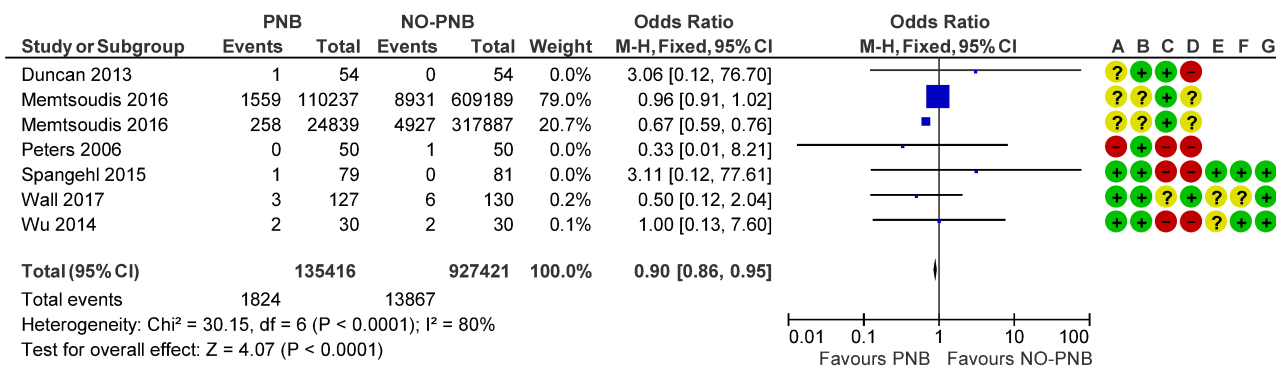
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

(R) RCT: incomplete outcome data

1.76 Renal complications (composite) | Total



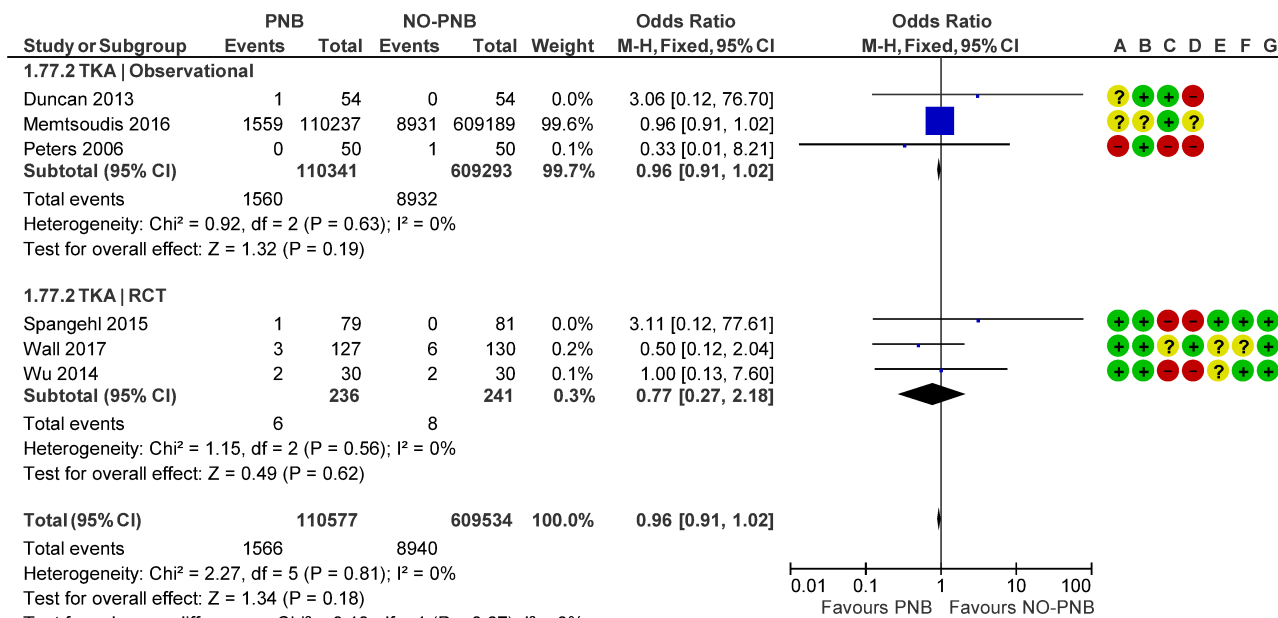
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (K) Observational Study: Failure to adequately control for confounding
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- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
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- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.77 Renal complications (composite) | TKA



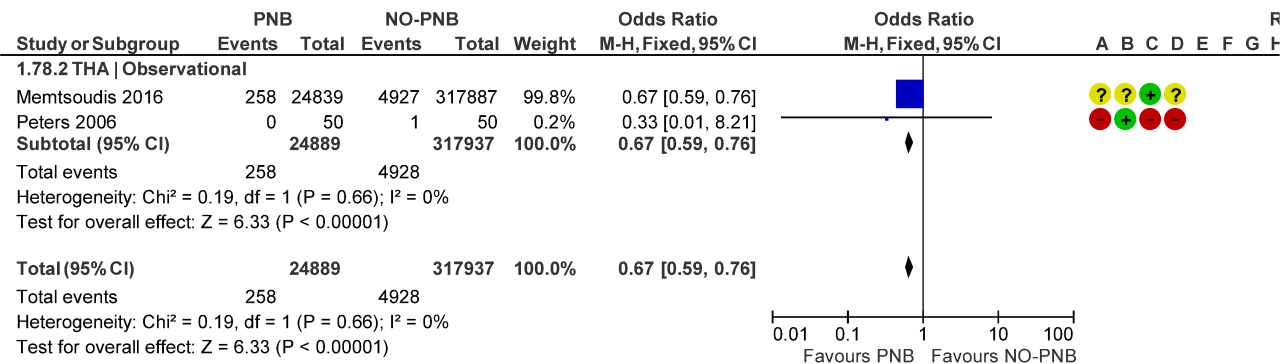
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.78 Renal complications (composite) | THA



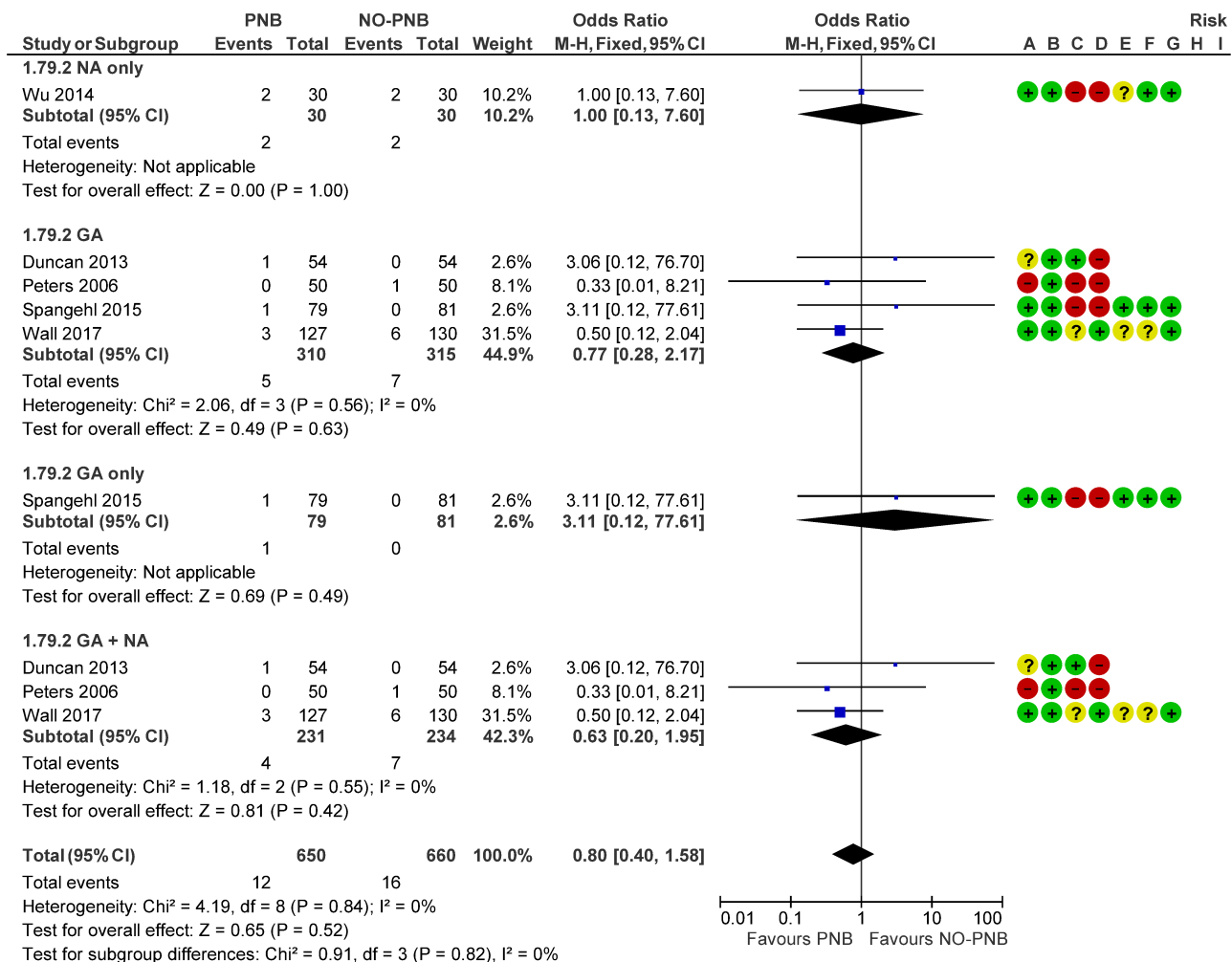
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
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- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (J) Observational Study: Incomplete follow-up
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- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.79 Renal failure (composite) | GA/NA (THA/TKA)



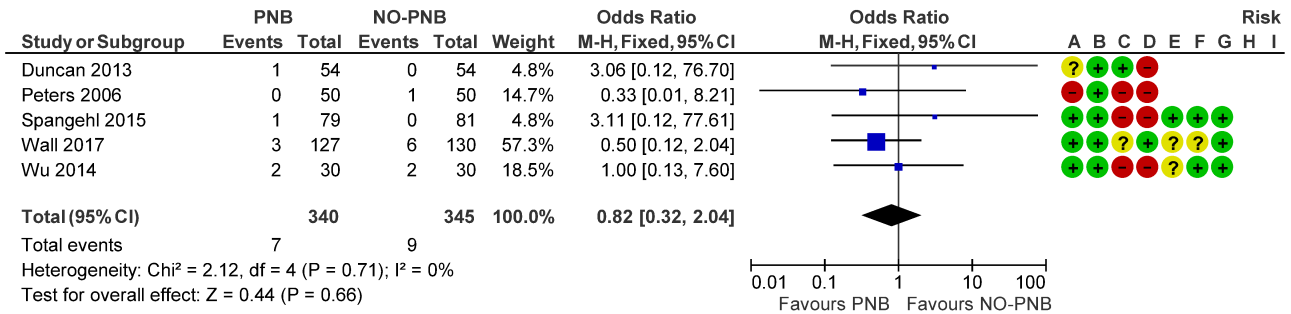
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (G) Other bias
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
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- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.80 Renal failure (composite) | Total



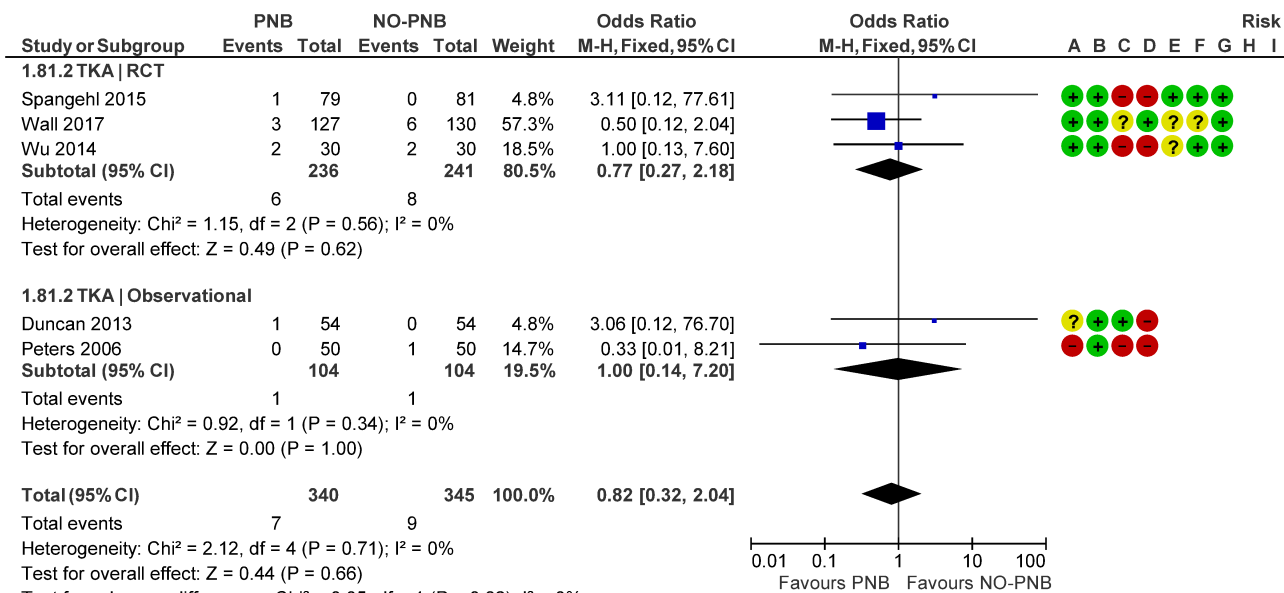
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
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- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.81 Renal failure (composite) | TKA



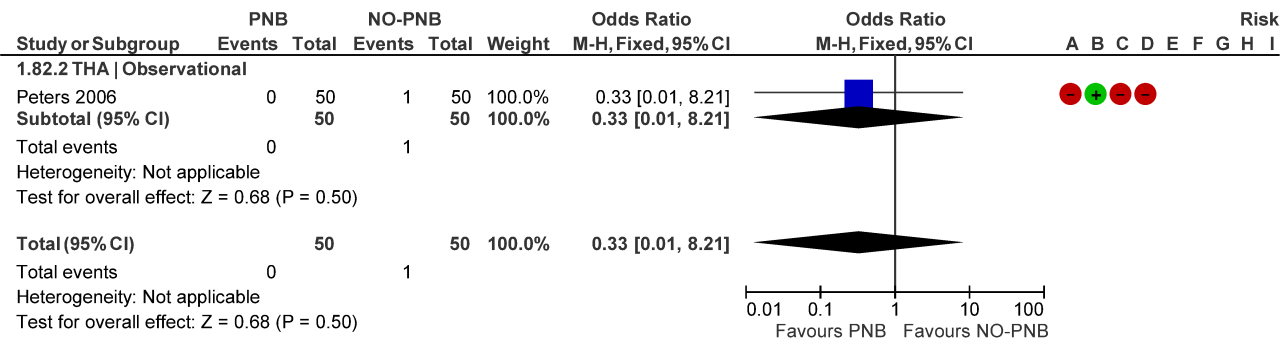
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.82 Renal failure (composite) | THA



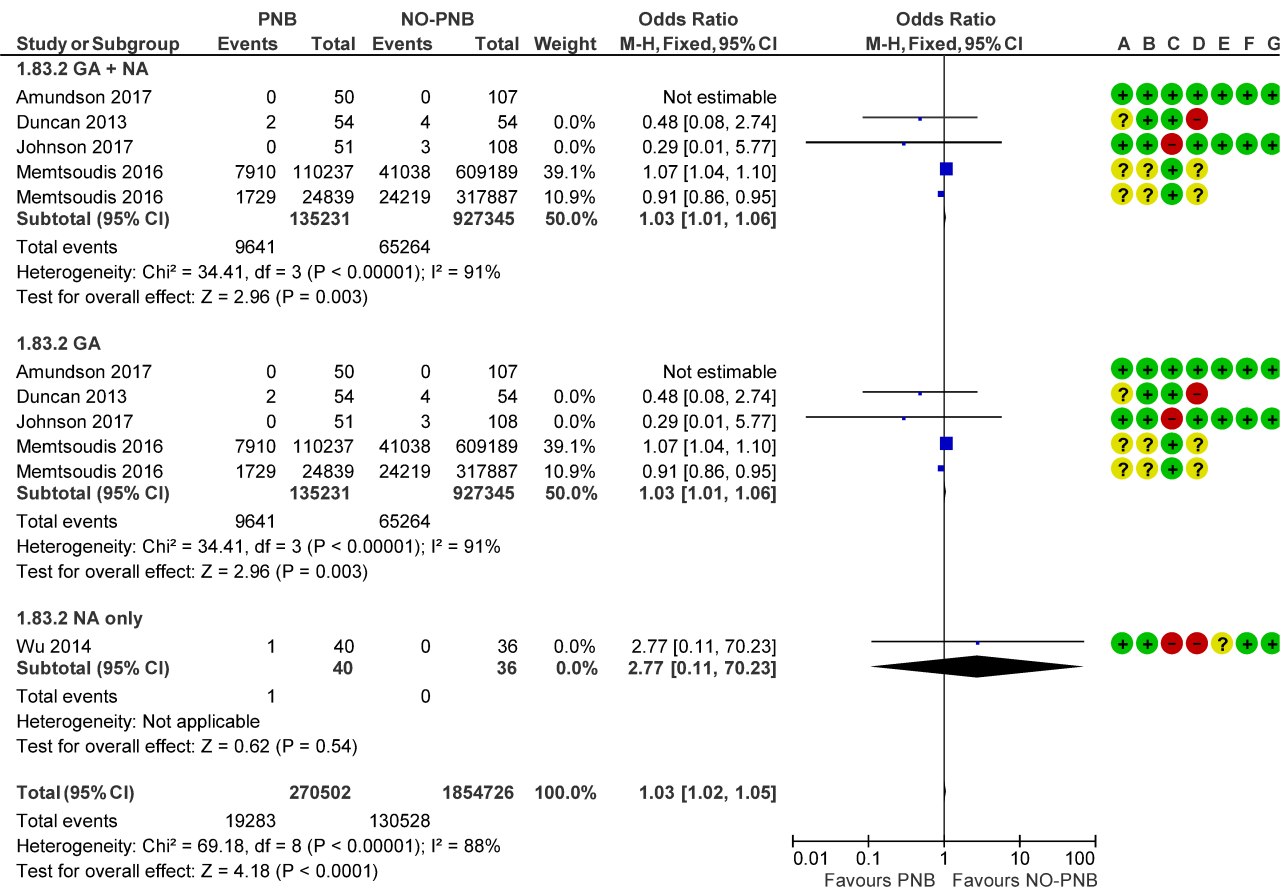
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
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- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.83 Critical care admission | GA/NA (THA/TKA)



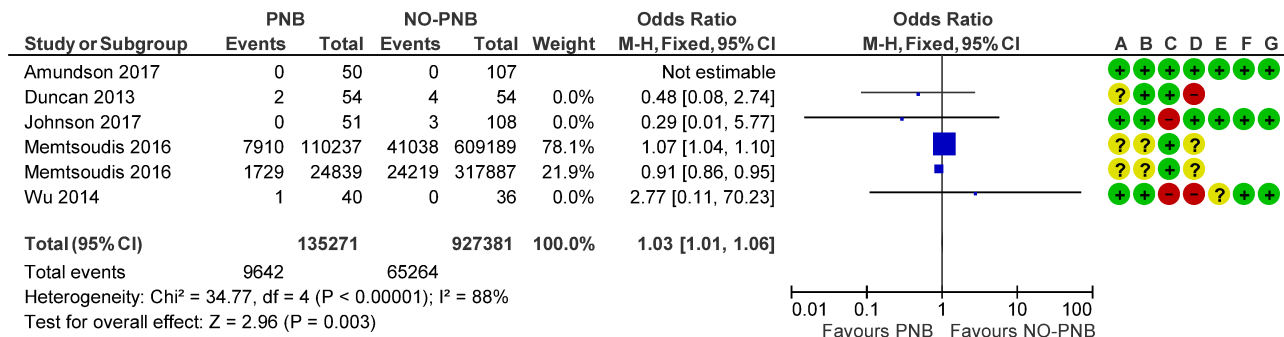
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.84 Critical care admission | Total



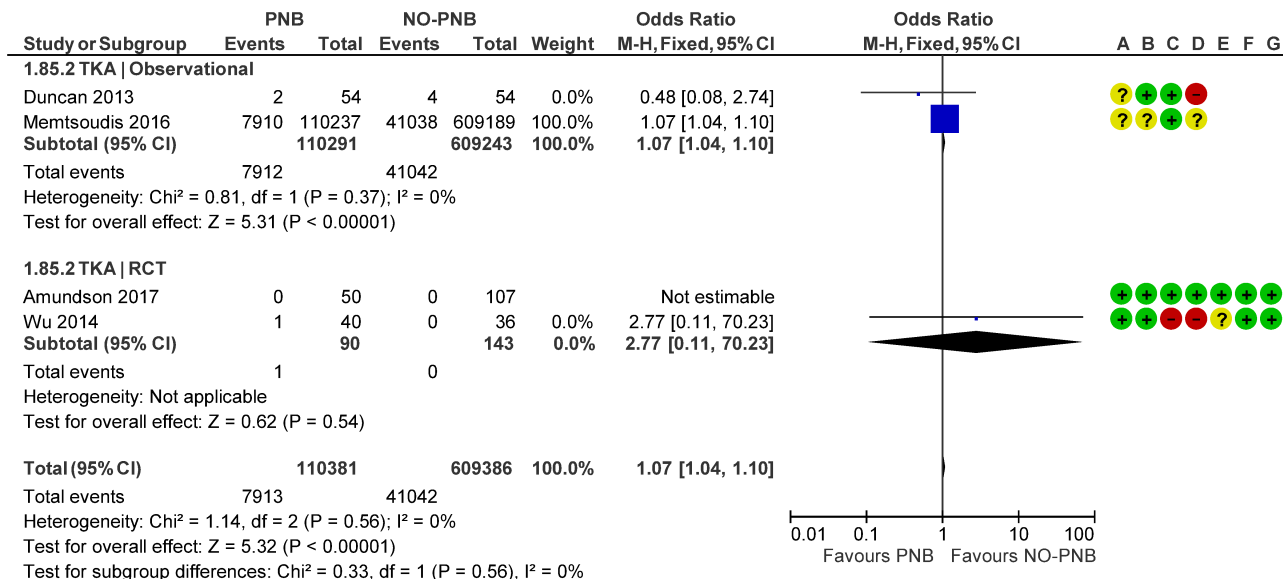
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.85 Critical care admission | TKA



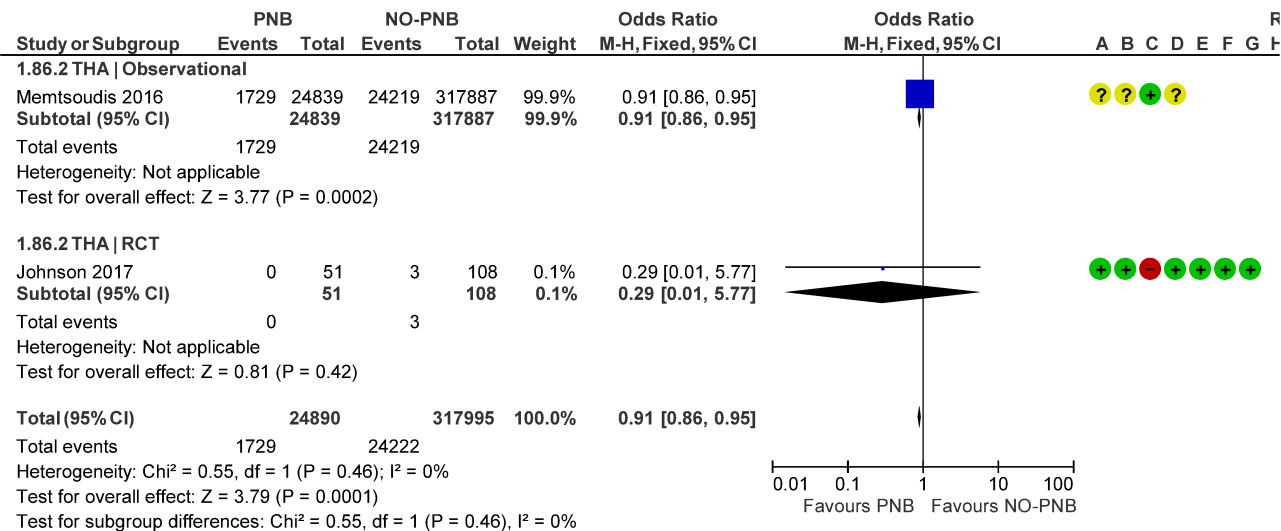
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

23-Feb-2021

1.86 Critical care admission | THA



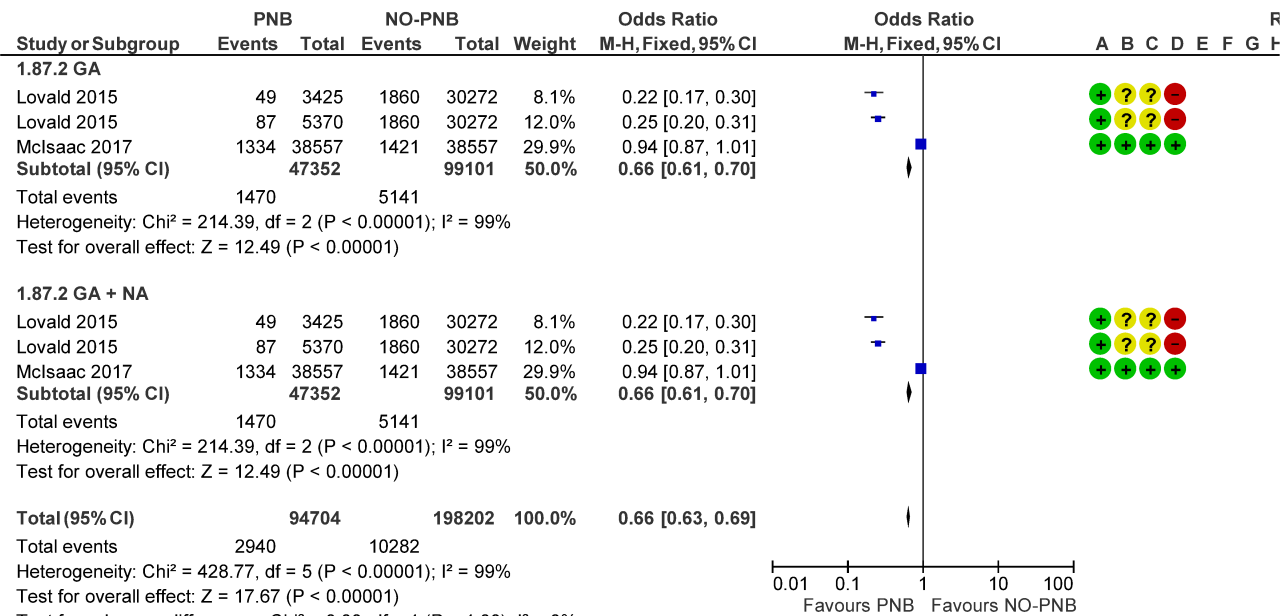
Risk of bias legend

- (A) Random sequence generation (selection bias)
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.87 Readmission|GA/NA (THA/TKA)



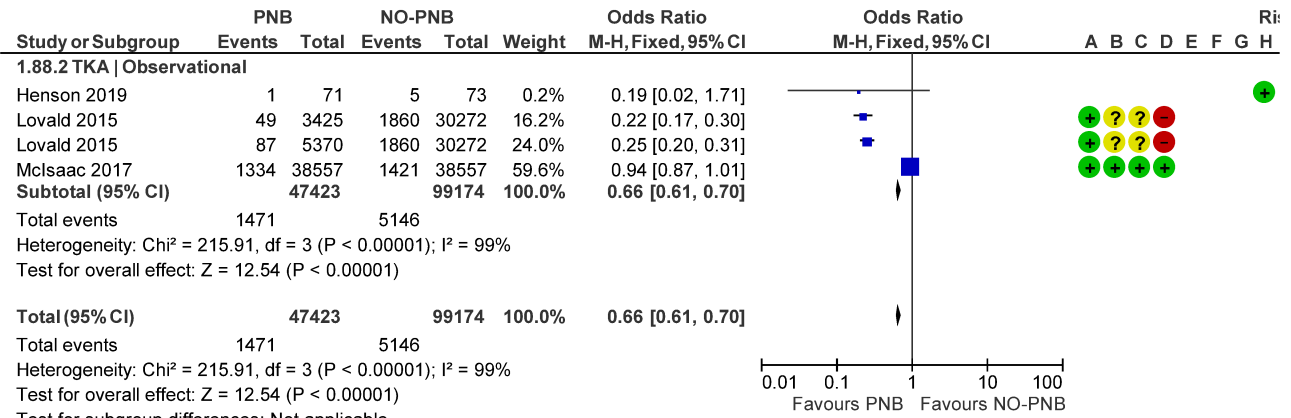
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.88 Readmission | TKA



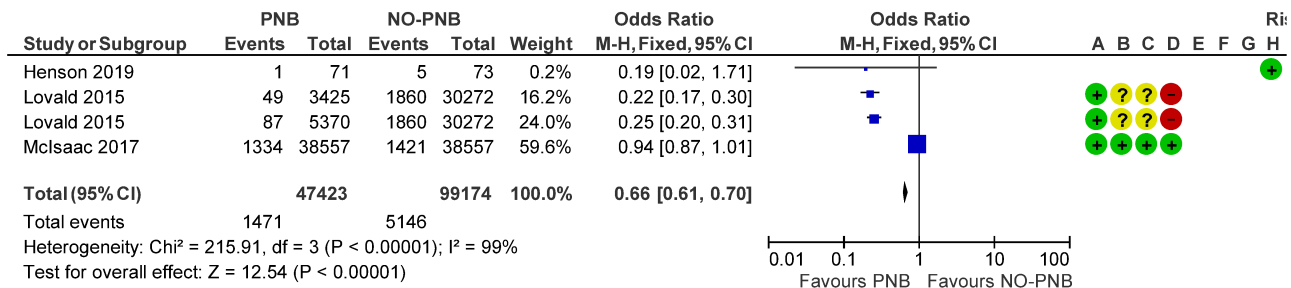
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.89 Readmission | Total



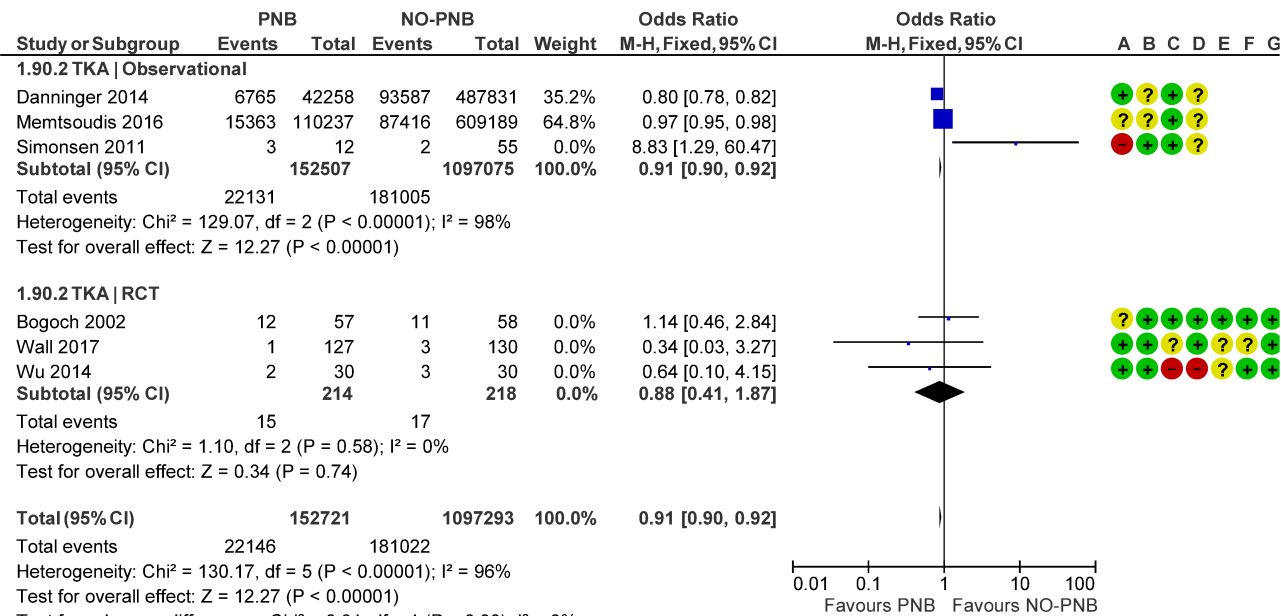
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.90 Blood transfusion | TKA



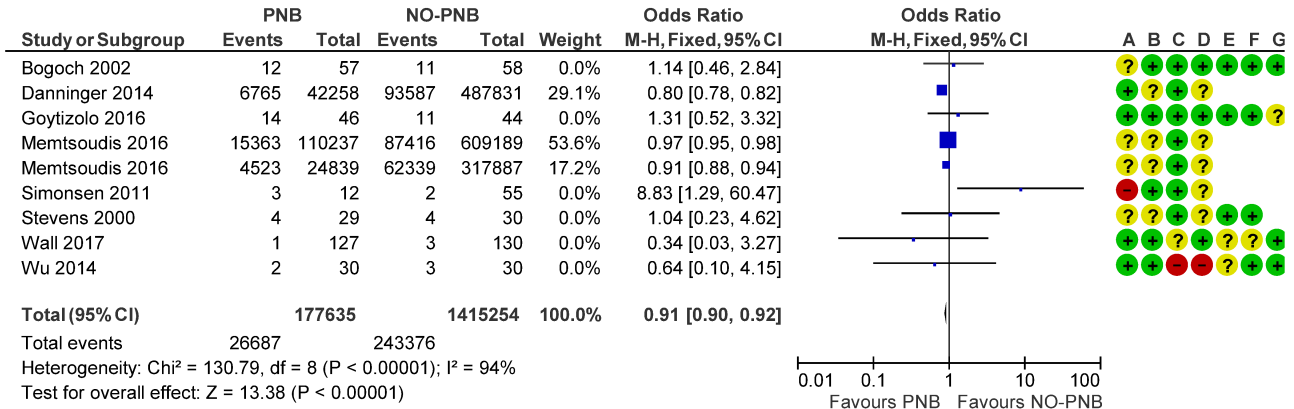
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.91 Blood transfusion | Total



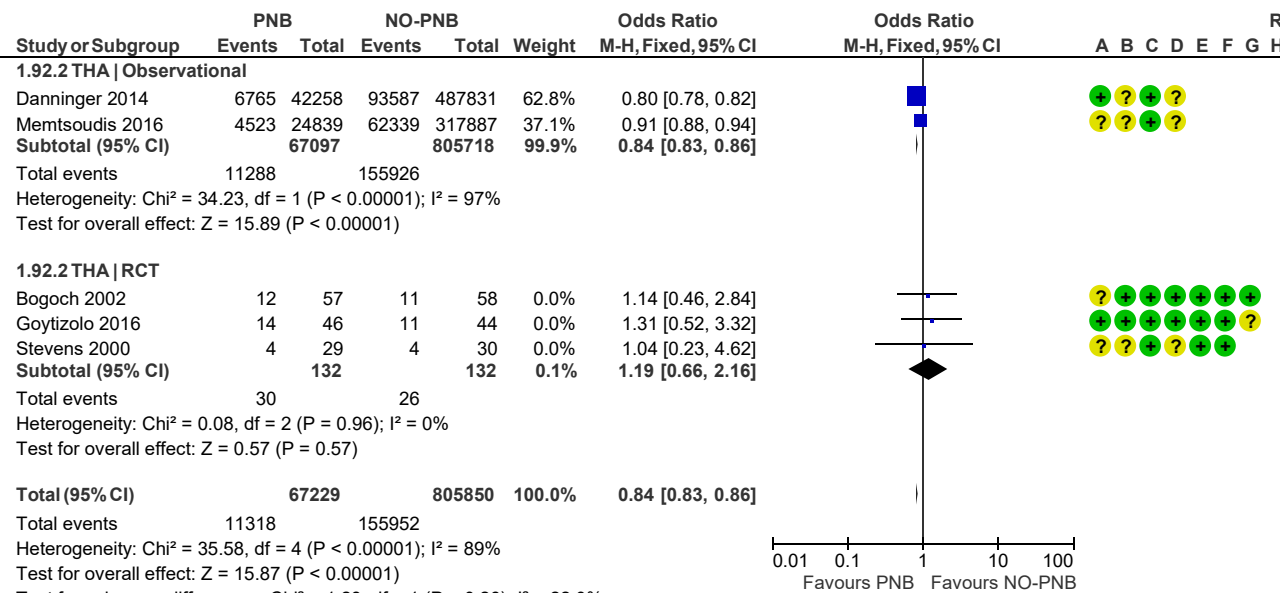
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.92 Blood transfusion | THA



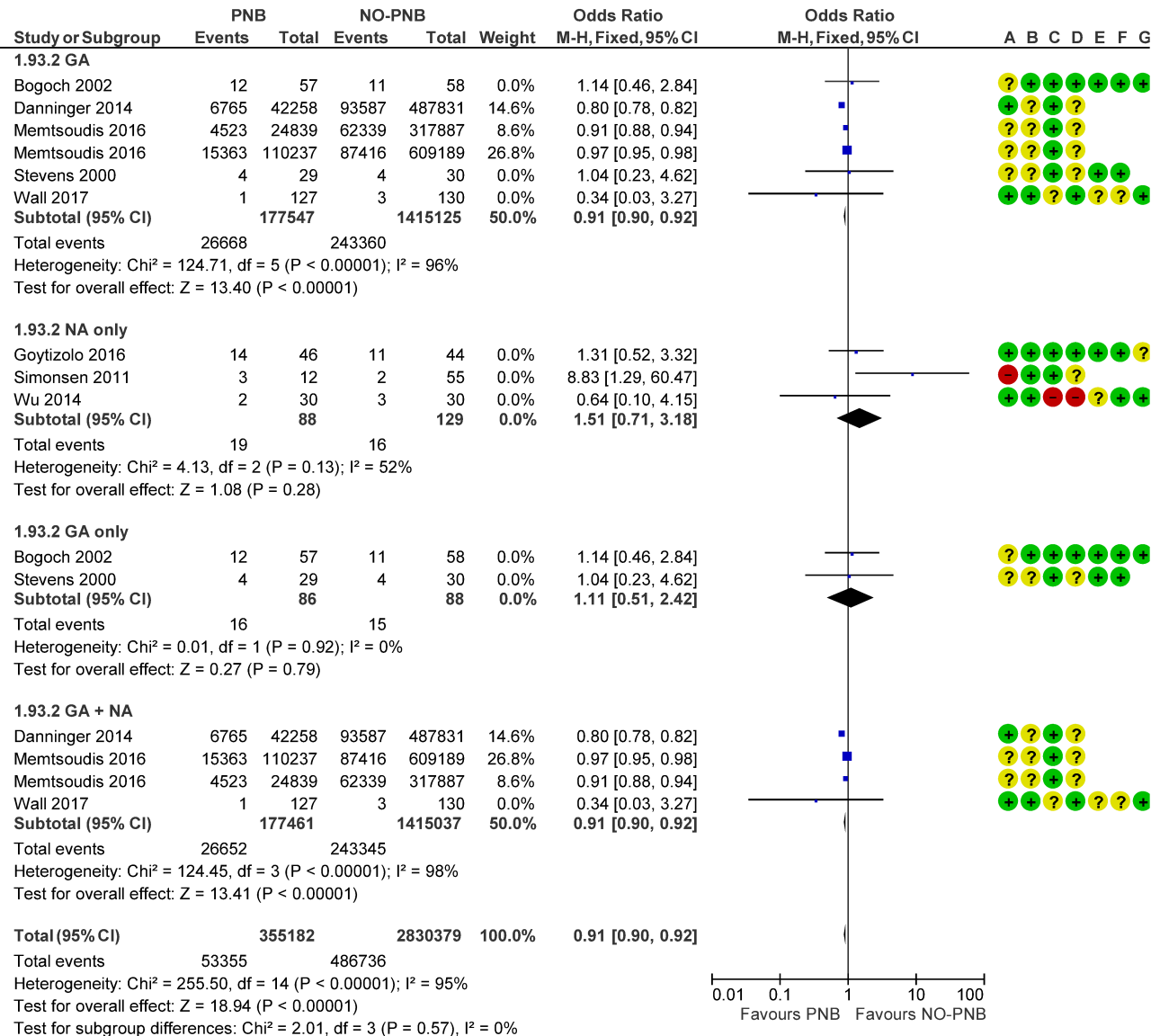
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.93 Blood transfusion | GA/NA (THA/TKA)



Risk of bias legend

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PNB versus no PNB for THA/TKA

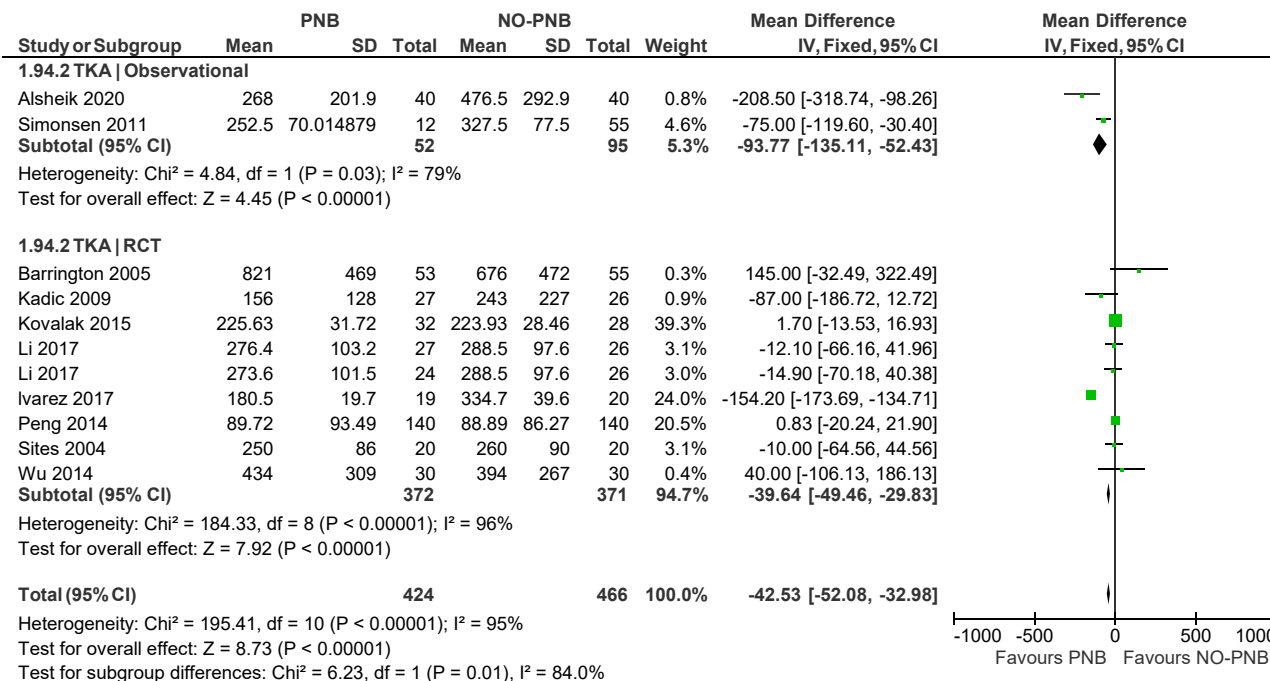
23-Feb-2021

- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.94 Blood loss (total / intraop / postop) | TKA

Risk of bias legend

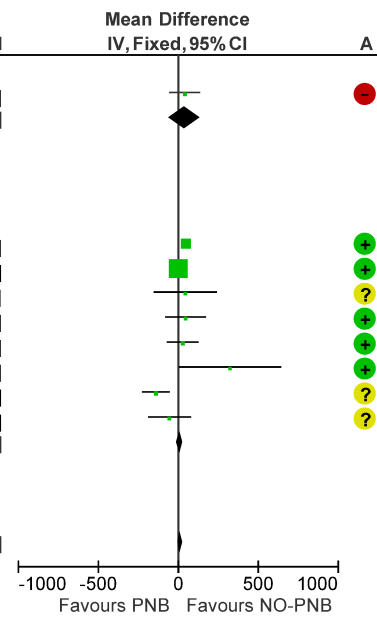
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.95 Blood loss (total / intraop / postop) | THA

Study or Subgroup	PNB			NO-PNB			Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI	A
	Mean	SD	Total	Mean	SD	Total				
1.95.2 THA Observational										
Tetsunaga 2016	252	168	30	212	219	32	2.4%	40.00 [-56.81, 136.81]		●
Subtotal (95% CI)			30			32	2.4%	40.00 [-56.81, 136.81]		◆
Heterogeneity: Not applicable Test for overall effect: Z = 0.81 (P = 0.42)										
1.95.2 THA RCT										
Aksoy 2014	329.57	53.66	35	283.14	68.66	35	26.6%	46.43 [17.56, 75.30]		●
Kearns 2016	300	50	54	300	50	54	62.4%	0.00 [-18.86, 18.86]		●
Kendrii 2017	800	280.3	15	756.66	274.42	15	0.6%	43.34 [-155.17, 241.85]		●
Kratz 2015	487	244	26	442	225	26	1.4%	45.00 [-82.58, 172.58]		●
Nishio 2014	606.3	145.7	10	578.7	61.9	9	2.3%	27.60 [-71.35, 126.55]		●
Siddiqui 2007	1,031	569	17	707	360	17	0.2%	324.00 [3.93, 644.07]		●
Stevens 2000	170	125	29	310	204	30	3.0%	-140.00 [-226.02, -53.98]		●
Twyman 1990	402	185	10	457	111	10	1.2%	-55.00 [-188.72, 78.72]		●
Subtotal (95% CI)			196			196	97.6%	9.90 [-5.18, 24.97]		◆
Heterogeneity: Chi ² = 24.00, df = 7 (P = 0.001); I ² = 71% Test for overall effect: Z = 1.29 (P = 0.20)										
Total (95% CI)			226			228	100.0%	10.61 [-4.28, 25.50]		◆
Heterogeneity: Chi ² = 24.37, df = 8 (P = 0.002); I ² = 67% Test for overall effect: Z = 1.40 (P = 0.16) Test for subgroup differences: Chi ² = 0.36, df = 1 (P = 0.55), I ² = 0%										



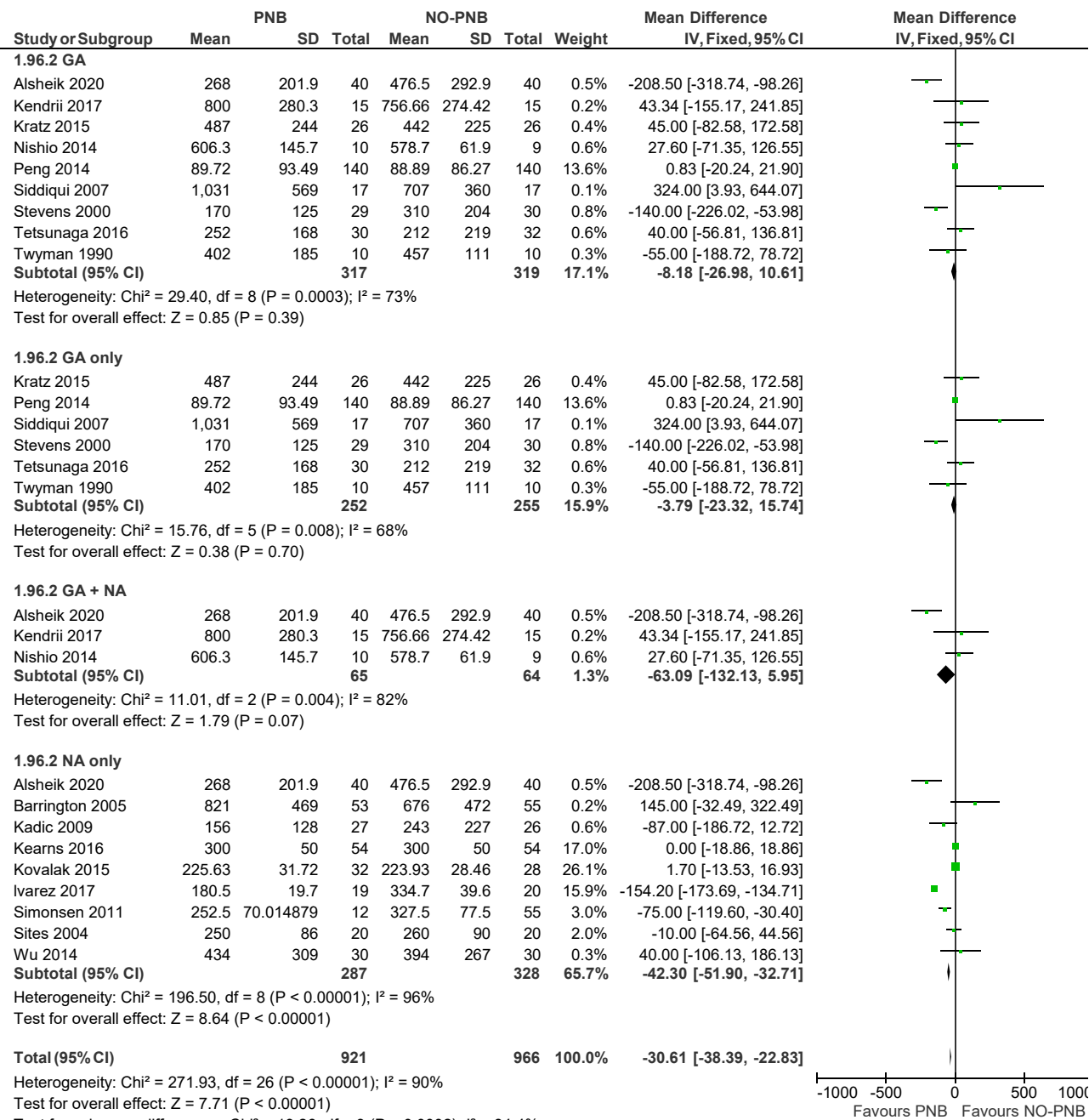
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.96 Blood loss (total / intraop / postop) | GA/NA (THA/TKA)



Risk of bias legend

- (A) Random sequence generation (selection bias)
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PNB versus no PNB for THA/TKA

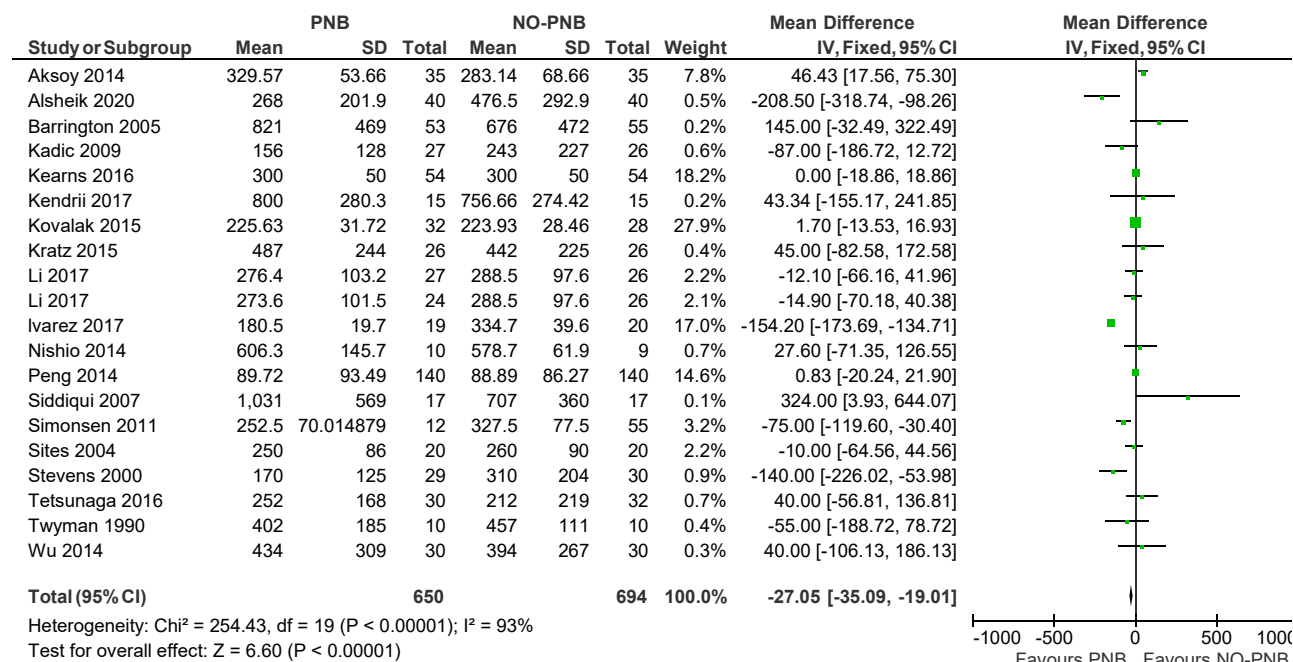
23-Feb-2021

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PNB versus no PNB for THA/TKA

23-Feb-2021

1.97 Blood loss (total / intraop / postop) | Total



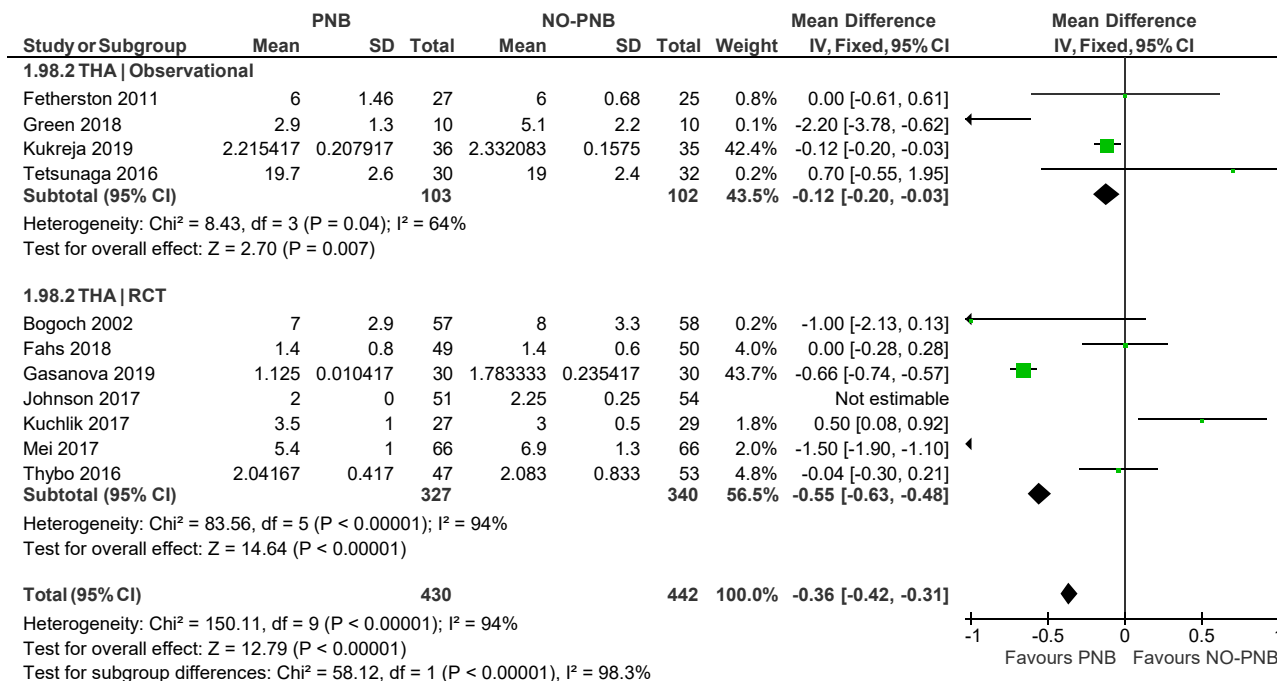
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PNB versus no PNB for THA/TKA

23-Feb-2021

1.98 Length of hospital stay (LOS) | THA



Risk of bias legend

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PNB versus no PNB for THA/TKA

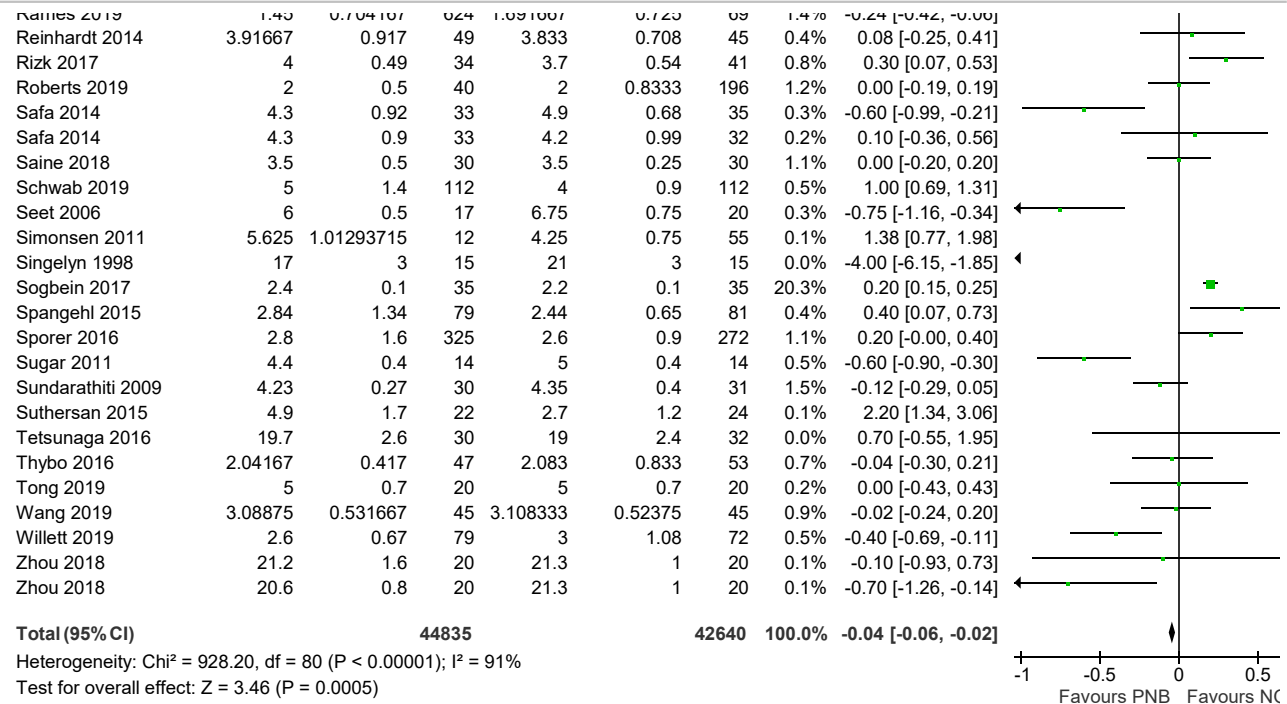
23-Feb-2021

1.99 Length of hospital stay (LOS) | Total

Study or Subgroup	PNB			NO-PNB			Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
	Mean	SD	Total	Mean	SD	Total			
Amundson 2017	2	0.1666	50	2	0.1666	107	14.2%	0.00 [-0.06, 0.06]	
Andersen 2012	3.4	0.65	20	3.3	0.85	20	0.2%	0.10 [-0.37, 0.57]	
Angers 2019	6.2	2.1	45	6.1	3	45	0.0%	0.10 [-0.97, 1.17]	
Antoni 2014	8.8	3.5	49	6.1	3.4	49	0.0%	2.70 [1.33, 4.07]	
Ashraf 2013	5.7	1.3	21	5.4	1.2	19	0.1%	0.30 [-0.47, 1.07]	
Barrington 2005	5.3	1.1	53	5.4	1.1	55	0.3%	-0.10 [-0.51, 0.31]	
Beaupre 2012	4.25	0.25	19	3.5	0.25	20	1.8%	0.75 [0.59, 0.91]	
Biswas 2018	3	0	68	3	0	62		Not estimable	
Bogoch 2002	7	2.9	57	8	3.3	58	0.0%	-1.00 [-2.13, 0.13]	
Campbell 2008	9	4	26	8.75	3.75	30	0.0%	0.25 [-1.79, 2.29]	
Chan 2013	5.5	1.6	65	5.4	1.4	66	0.2%	0.10 [-0.42, 0.62]	
Chan 2013	5.9	1.9	69	5.4	1.4	66	0.1%	0.50 [-0.06, 1.06]	
Chan 2014	5.5	1.6	65	5.4	1.4	66	0.2%	0.10 [-0.42, 0.62]	
Chan 2014	5.9	1.9	69	5.4	1.4	66	0.1%	0.50 [-0.06, 1.06]	
Chaumeron 2013	6.8	2.6	30	6.6	2.1	29	0.0%	0.20 [-1.00, 1.40]	
Cien 2015	2	0.7	65	1.6	0.7	57	0.7%	0.40 [0.15, 0.65]	
DeRuyter 2006	3.6	0.6	24	4.2	1	26	0.2%	-0.60 [-1.05, -0.15]	
Fahs 2018	1.4	0.8	49	1.4	0.6	50	0.6%	0.00 [-0.28, 0.28]	
Fan 2016	18.6	4.7	78	17.3	3.7	79	0.0%	1.30 [-0.02, 2.62]	
Fenten 2018	3.2	1.1	40	3	0.9	40	0.2%	0.20 [-0.24, 0.64]	
Fetherston 2011	6	1.46	27	6	0.68	25	0.1%	0.00 [-0.61, 0.61]	
Gasanova 2019	1.125	0.010417	30	1.783333	0.235417	30	6.3%	-0.66 [-0.74, -0.57]	
Goytizolo 2020	1.075	0.2177	55	1.1	0.2427	56	6.1%	-0.03 [-0.11, 0.06]	
Green 2018	2.9	1.3	10	5.1	2.2	10	0.0%	-2.20 [-3.78, -0.62]	
Grosso 2018	2.5	2.1	51	2.5	1.2	51	0.1%	0.00 [-0.66, 0.66]	
Gwam 2018	1.98	0.16	65	2.44	0.25	45	6.5%	-0.46 [-0.54, -0.38]	
Henson 2019	2.97	1.08	71	2.63	0.68	73	0.5%	0.34 [0.04, 0.64]	
Horn 2015	1.9	0.6	16	1.5	0.6	16	0.3%	0.40 [-0.02, 0.82]	
Johnson 2017	2	0	51	2.25	0.25	54		Not estimable	
Kampitak 2018	4	0	29	4.11	0.31	28		Not estimable	
Kardash 2007	6.7	1.34164079	20	6.1	1.34164079	20	0.1%	0.60 [-0.23, 1.43]	
Kardash 2007	6.2	1.30766968	19	6.1	1.34164079	20	0.1%	0.10 [-0.73, 0.93]	
Kayupov 2018	2.21	1.58	47	2.46	0.98	44	0.2%	-0.25 [-0.79, 0.29]	
Kayupov 2018	2.14	0.68	41	2.46	0.98	44	0.4%	-0.32 [-0.68, 0.04]	
Kinjo 2012	5.7	6.4	29	5	1.9	52	0.0%	0.70 [-1.69, 3.09]	
Kirkness 2017	3.6	1.6	134	3.1	1.7	134	0.3%	0.50 [0.10, 0.90]	
Kovalak 2015	4.81	0.69	32	4.61	0.74	28	0.3%	0.20 [-0.16, 0.56]	
Kuchlik 2017	3.5	1	27	3	0.5	29	0.3%	0.50 [0.08, 0.92]	
Kukreja 2019	2.215417	0.207917	36	2.332083	0.1575	35	6.1%	-0.12 [-0.20, -0.03]	
Kulkarni 2019	4.8	1.43	50	5.1	1.24	50	0.2%	-0.30 [-0.82, 0.22]	
Lee 2012	17.3	4	20	17.7	5.1	20	0.0%	-0.40 [-3.24, 2.44]	
Leung 2018	2.67	1.1	38	2.42	0.68	32	0.3%	0.25 [-0.17, 0.67]	
Li 2017	5.2	1	27	3.6	0.8	26	0.2%	1.60 [1.11, 2.09]	
Li 2017	4.9	0.8	24	3.6	0.8	26	0.2%	1.30 [0.86, 1.74]	
Liu 2015	3.61	1.02298463	1329	3.76	1.01554645	439	3.7%	-0.15 [-0.26, -0.04]	
Lu 2017	4.5	1.1	28	5	2.2	29	0.1%	-0.50 [-1.40, 0.40]	
Mclsaac 2017	4.7	3.9	38557	4.8	4.1	38557	14.0%	-0.10 [-0.16, -0.04]	
Mei 2017	5.4	1	66	6.9	1.3	66	0.3%	-1.50 [-1.90, -1.10]	
Ng 2001	8.8	3.4	12	8.8	2.9	12	0.0%	0.00 [-2.53, 2.53]	
Ng 2001	9.5	3.4	12	8.8	2.9	12	0.0%	0.70 [-1.83, 3.23]	
Ng 2001	9.3	3	12	8.8	2.9	12	0.0%	0.50 [-1.86, 2.86]	
Pope 2015	2.8	1	267	2.9	1.1	27	0.2%	-0.10 [-0.53, 0.33]	
Pope 2015	2.8	0.9	77	2.9	1.1	27	0.2%	-0.10 [-0.56, 0.36]	
Pope 2015	3.1	1.2	37	2.8	0.8	17	0.2%	0.30 [-0.24, 0.84]	
Pope 2015	2.8	1	267	3.3	1	18	0.2%	-0.50 [-0.98, -0.02]	
Pope 2015	3.1	1.2	37	2.9	1.1	27	0.1%	0.20 [-0.37, 0.77]	
Pope 2015	2.8	1	267	2.8	0.8	17	0.3%	0.00 [-0.40, 0.40]	
Pope 2015	3.1	1.2	37	3.3	1	18	0.1%	-0.20 [-0.80, 0.40]	
Pope 2015	2.8	0.9	77	2.8	0.8	17	0.2%	0.00 [-0.43, 0.43]	
Pope 2015	2.8	0.9	77	3.3	1	18	0.2%	-0.50 [-1.00, 0.00]	
Pope 2015	1.45	0.704167	624	1.691667	0.725	60	1.4%	-0.24 [-0.42, -0.06]	

PNB versus no PNB for THA/TKA

23-Feb-2021



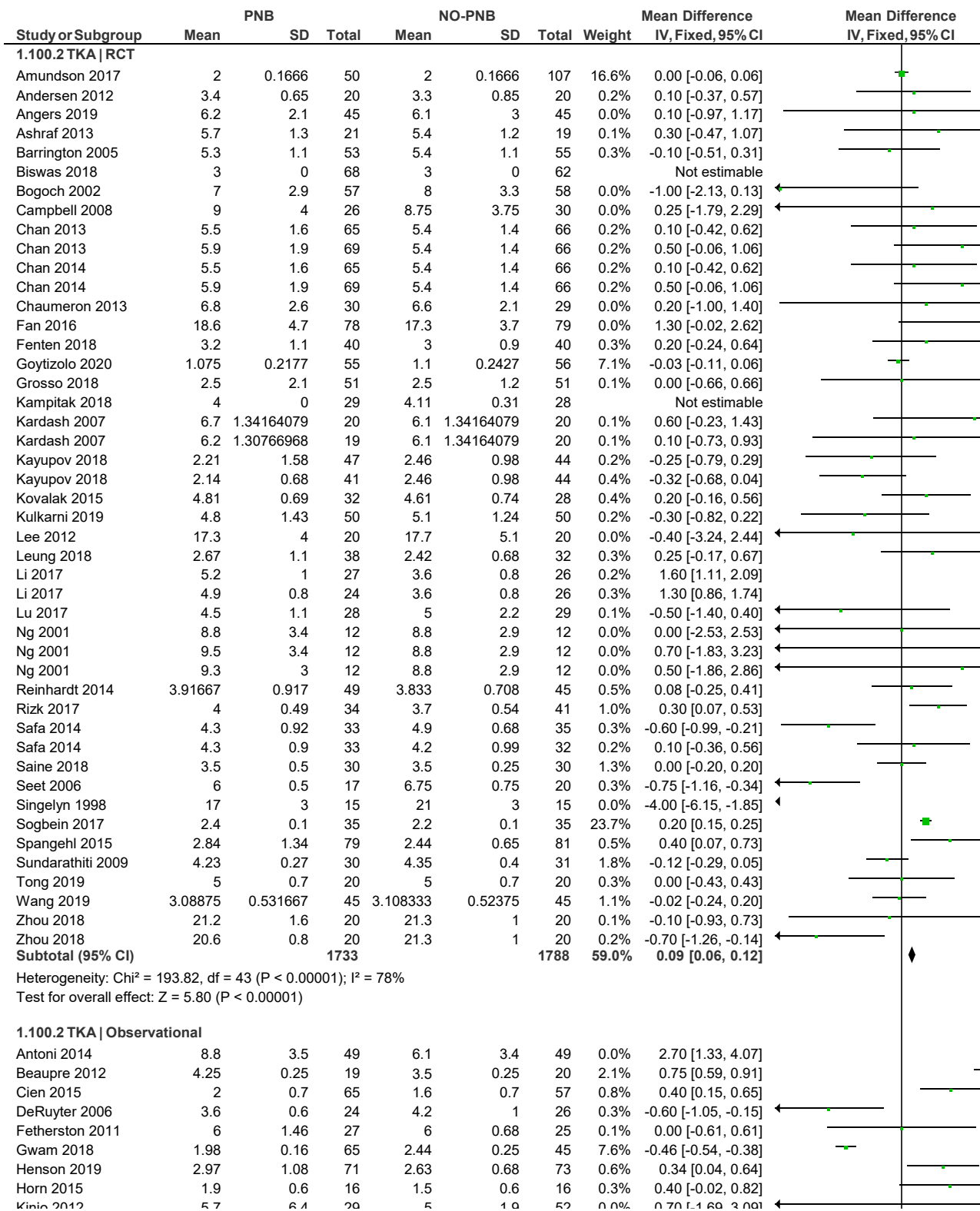
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias
- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
- (I) Observational Study: Flawed measurement of exposure or outcome
- (J) Observational Study: Incomplete follow-up
- (K) Observational Study: Failure to adequately control for confounding
- (L) RCT: Selective outcome reporting
- (M) RCT: Sequence Generation
- (N) RCT: Other sources of bias
- (O) RCT: Blinding of outcome assessors
- (P) RCT: Blinding of participants and personnel
- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

PNB versus no PNB for THA/TKA

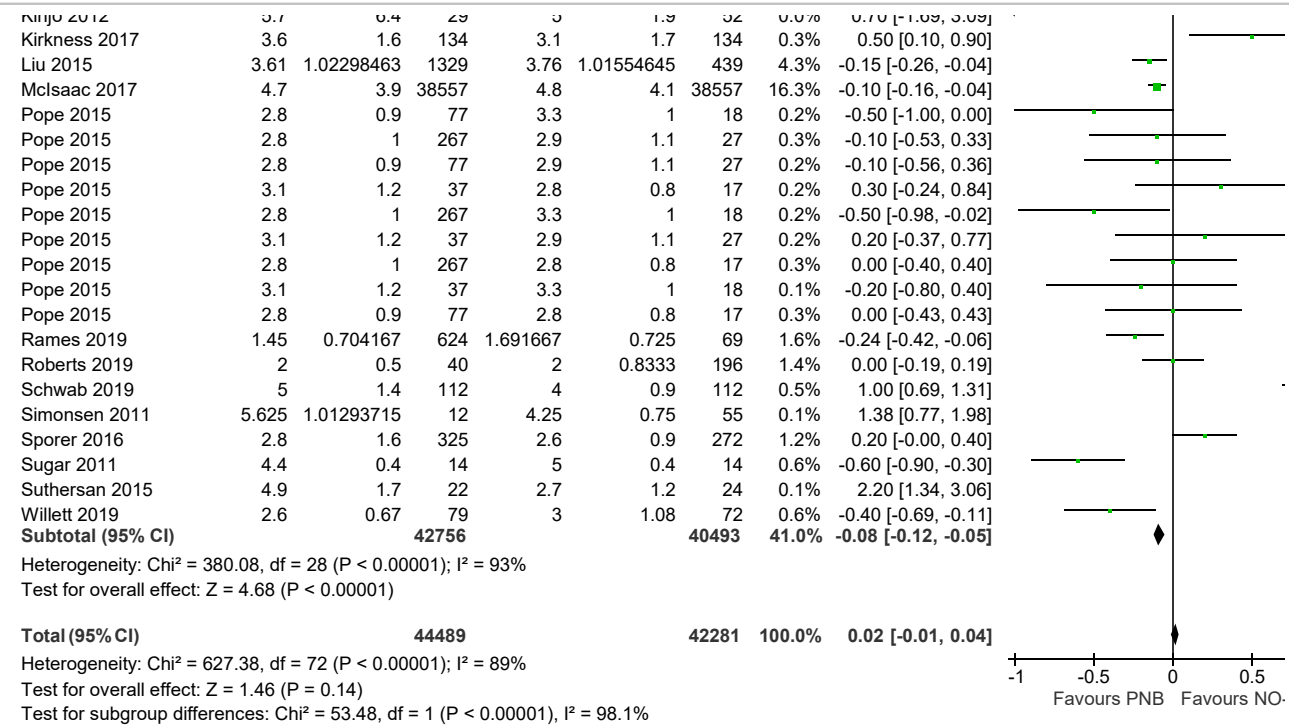
23-Feb-2021

1.100 Length of hospital stay (LOS) | TKA



PNB versus no PNB for THA/TKA

23-Feb-2021



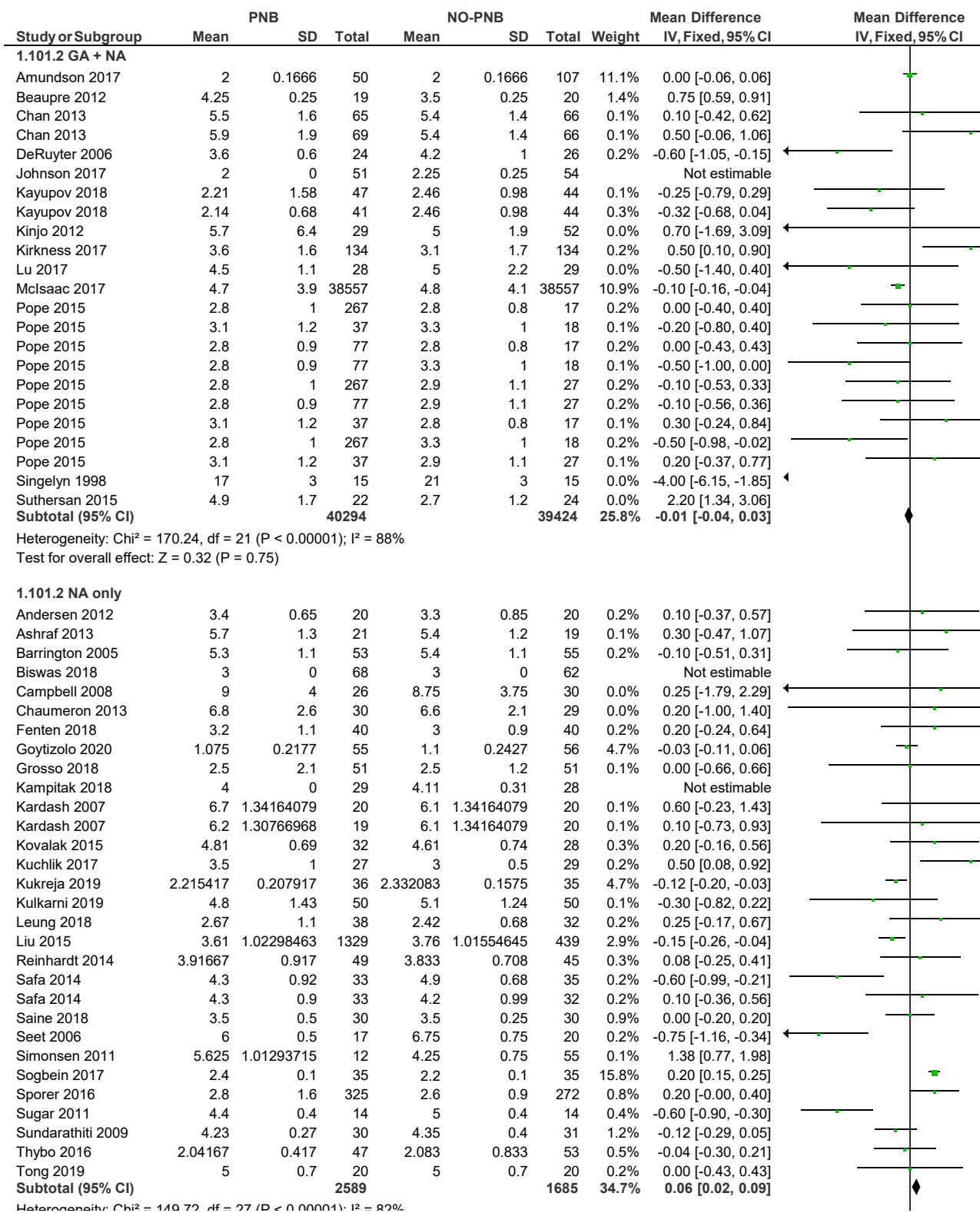
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
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PNB versus no PNB for THA/TKA

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1.101 Length of hospital stay (LOS) | GA/NA (THA/TKA)



Review Manager 5.4.1

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PNB versus no PNB for THA/TKA

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heterogeneity: Chi² = 149.72, df = 21 (P < 0.00001), I² = 92.70
 Test for overall effect: Z = 3.48 (P = 0.0005)

1.101.2 GA

Amundson 2017	2	0.1666	50	2	0.1666	107	11.1%	0.00 [-0.06, 0.06]	
Angers 2019	6.2	2.1	45	6.1	3	45	0.0%	0.10 [-0.97, 1.17]	
Antoni 2014	8.8	3.5	49	6.1	3.4	49	0.0%	2.70 [1.33, 4.07]	
Beaupre 2012	4.25	0.25	19	3.5	0.25	20	1.4%	0.75 [0.59, 0.91]	
Bogoch 2002	7	2.9	57	8	3.3	58	0.0%	-1.00 [-2.13, 0.13]	
Chan 2013	5.5	1.6	65	5.4	1.4	66	0.1%	0.10 [-0.42, 0.62]	
Chan 2013	5.9	1.9	69	5.4	1.4	66	0.1%	0.50 [-0.06, 1.06]	
DeRuyter 2006	3.6	0.6	24	4.2	1	26	0.2%	-0.60 [-1.05, -0.15]	
Fahs 2018	1.4	0.8	49	1.4	0.6	50	0.4%	0.00 [-0.28, 0.28]	
Fan 2016	18.6	4.7	78	17.3	3.7	79	0.0%	1.30 [-0.02, 2.62]	
Gasanova 2019	1.125	0.010417	30	1.783333	0.235417	30	4.9%	-0.66 [-0.74, -0.57]	
Green 2018	2.9	1.3	10	5.1	2.2	10	0.0%	-2.20 [-3.78, -0.62]	
Johnson 2017	2	0	51	2.25	0.25	54		Not estimable	
Kayupov 2018	2.21	1.58	47	2.46	0.98	44	0.1%	-0.25 [-0.79, 0.29]	
Kayupov 2018	2.14	0.68	41	2.46	0.98	44	0.3%	-0.32 [-0.68, 0.04]	
Kinjo 2012	5.7	6.4	29	5	1.9	52	0.0%	0.70 [-1.69, 3.09]	
Kirkness 2017	3.6	1.6	134	3.1	1.7	134	0.2%	0.50 [0.10, 0.90]	
Lee 2012	17.3	4	20	17.7	5.1	20	0.0%	-0.40 [-3.24, 2.44]	
Lu 2017	4.5	1.1	28	5	2.2	29	0.0%	-0.50 [-1.40, 0.40]	
Mclsaac 2017	4.7	3.9	38557	4.8	4.1	38557	10.9%	-0.10 [-0.16, -0.04]	
Mei 2017	5.4	1	66	6.9	1.3	66	0.2%	-1.50 [-1.90, -1.10]	
Ng 2001	8.8	3.4	12	8.8	2.9	12	0.0%	0.00 [-2.53, 2.53]	
Ng 2001	9.5	3.4	12	8.8	2.9	12	0.0%	0.70 [-1.83, 3.23]	
Ng 2001	9.3	3	12	8.8	2.9	12	0.0%	0.50 [-1.86, 2.86]	
Pope 2015	2.8	1	267	2.9	1.1	27	0.2%	-0.10 [-0.53, 0.33]	
Pope 2015	2.8	0.9	77	2.9	1.1	27	0.2%	-0.10 [-0.56, 0.36]	
Pope 2015	3.1	1.2	37	2.8	0.8	17	0.1%	0.30 [-0.24, 0.84]	
Pope 2015	2.8	1	267	3.3	1	18	0.2%	-0.50 [-0.98, -0.02]	
Pope 2015	3.1	1.2	37	2.9	1.1	27	0.1%	0.20 [-0.37, 0.77]	
Pope 2015	2.8	1	267	2.8	0.8	17	0.2%	0.00 [-0.40, 0.40]	
Pope 2015	3.1	1.2	37	3.3	1	18	0.1%	-0.20 [-0.80, 0.40]	
Pope 2015	2.8	0.9	77	2.8	0.8	17	0.2%	0.00 [-0.43, 0.43]	
Pope 2015	2.8	0.9	77	3.3	1	18	0.1%	-0.50 [-1.00, 0.00]	
Rizk 2017	4	0.49	34	3.7	0.54	41	0.6%	0.30 [0.07, 0.53]	
Singelyn 1998	17	3	15	21	3	15	0.0%	-4.00 [-6.15, -1.85]	
Spangehl 2015	2.84	1.34	79	2.44	0.65	81	0.3%	0.40 [0.07, 0.73]	
Suthersan 2015	4.9	1.7	22	2.7	1.2	24	0.0%	2.20 [1.34, 3.06]	
Tetsunaga 2016	19.7	2.6	30	19	2.4	32	0.0%	0.70 [-0.55, 1.95]	
Zhou 2018	21.2	1.6	20	21.3	1	20	0.1%	-0.10 [-0.93, 0.73]	
Zhou 2018	20.6	0.8	20	21.3	1	20	0.1%	-0.70 [-1.26, -0.14]	
Subtotal (95% CI)			40917			40061	32.6%	-0.10 [-0.14, -0.07]	

Heterogeneity: Chi² = 469.06, df = 38 (P < 0.00001); I² = 92%
 Test for overall effect: Z = 6.29 (P < 0.00001)

1.101.2 GA only

Angers 2019	6.2	2.1	45	6.1	3	45	0.0%	0.10 [-0.97, 1.17]	
Antoni 2014	8.8	3.5	49	6.1	3.4	49	0.0%	2.70 [1.33, 4.07]	
Bogoch 2002	7	2.9	57	8	3.3	58	0.0%	-1.00 [-2.13, 0.13]	
Fahs 2018	1.4	0.8	49	1.4	0.6	50	0.4%	0.00 [-0.28, 0.28]	
Fan 2016	18.6	4.7	78	17.3	3.7	79	0.0%	1.30 [-0.02, 2.62]	
Gasanova 2019	1.125	0.010417	30	1.783333	0.235417	30	4.9%	-0.66 [-0.74, -0.57]	
Green 2018	2.9	1.3	10	5.1	2.2	10	0.0%	-2.20 [-3.78, -0.62]	
Lee 2012	17.3	4	20	17.7	5.1	20	0.0%	-0.40 [-3.24, 2.44]	
Mei 2017	5.4	1	66	6.9	1.3	66	0.2%	-1.50 [-1.90, -1.10]	
Ng 2001	8.8	3.4	12	8.8	2.9	12	0.0%	0.00 [-2.53, 2.53]	
Ng 2001	9.5	3.4	12	8.8	2.9	12	0.0%	0.70 [-1.83, 3.23]	
Ng 2001	9.3	3	12	8.8	2.9	12	0.0%	0.50 [-1.86, 2.86]	
Rizk 2017	4	0.49	34	3.7	0.54	41	0.6%	0.30 [0.07, 0.53]	
Spangehl 2015	2.84	1.34	79	2.44	0.65	81	0.3%	0.40 [0.07, 0.73]	
Tetsunaga 2016	19.7	2.6	30	19	2.4	32	0.0%	0.70 [-0.55, 1.95]	
Zhou 2018	21.2	1.6	20	21.3	1	20	0.1%	-0.10 [-0.93, 0.73]	

PNB versus no PNB for THA/TKA

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Zhou 2018	20.6	0.8	20	21.3	1	20	0.1%	-0.70 [-1.26, -0.14]
Subtotal (95% CI)			623			637	6.8%	-0.48 [-0.55, -0.41]

Heterogeneity: $\text{Chi}^2 = 165.41$, $\text{df} = 16$ ($P < 0.00001$); $I^2 = 90\%$ Test for overall effect: $Z = 13.15$ ($P < 0.00001$)

Total (95% CI)			84423			81807	100.0%	-0.05 [-0.07, -0.03]
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Heterogeneity: $\text{Chi}^2 = 1152.81$, $\text{df} = 105$ ($P < 0.00001$); $I^2 = 91\%$ Test for overall effect: $Z = 5.14$ ($P < 0.00001$)Test for subgroup differences: $\text{Chi}^2 = 198.38$, $\text{df} = 3$ ($P < 0.00001$), $I^2 = 98.5\%$ Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
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- (H) Observational Study: Failure to develop and apply appropriate eligibility criteria
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- (Q) RCT: Allocation concealment
- (R) RCT: Incomplete outcome data

