

Search strategies for PubMed, EMBASE and Cochrane database

PubMed: 2,865 results

(("Nivolumab"[Substance] OR "Nivolumab "[All Fields] OR "Opdivo"[All Fields] OR "ONO-4538"[All Fields] OR "MDX-1106"[All Fields] OR "BMS-936558"[All Fields] OR "Nivo"[All Fields]) OR ("Pembrolizumab"[Substance] OR "Pembrolizumab "[All Fields] OR "lambrolizumab"[All Fields] OR "keytruda"[All Fields] OR "SCH 900475"[All Fields] OR "MK-3475"[All Fields])) OR ("Atezolizumab"[Substance] OR "Atezolizumab "[All Fields] OR "MSB0010718C"[All Fields] OR "Tecentriq"[All Fields] OR "RO5541267"[All Fields] OR "RG7446"[All Fields] OR "MPDL3280A"[All Fields])) OR ("Durvalumab"[Substance] OR " Durvalumab "[All Fields] OR "MEDI-4736"[All Fields] OR "MEDI4736"[All Fields])) OR ("checkpoint inhibitor"[All Field] OR " PD-1 "[All Fields] OR "PD-L1"[All Fields]))AND ("carcinoma"[Mesh] OR ("cancer"[All Fields] OR "tumor"[Title/Abstract])) AND (((("random allocation"[MeSH Terms] OR "randomized"[All Fields]) AND ("clinical trials as topic"[MeSH Terms] OR "trial"[All Fields])) OR randomized controlled trial[All Field]) AND ("humans"[MeSH Terms])

EMBASE: 3,169 results

No. 1: 'Nivolumab ' OR ' Opdivo ' OR ' ONO-4538 ' OR ' MDX-1106 ' OR ' BMS-936558 ' OR ' Nivo ' OR ' Pembrolizumab ' OR ' lambrolizumab ' OR ' keytruda ' OR ' SCH 900475 ' OR ' MK-3475' OR ' Atezolizumab ' OR ' MSB0010718C ' OR ' Tecentriq ' OR ' RO5541267 ' OR ' RG7446 ' OR ' MPDL3280A ' OR ' Durvalumab ' OR ' MEDI-4736 ' OR ' MEDI4736 ' OR ' checkpoint inhibitor ' OR ' PD-1 ' OR ' PD-L1 ' AND (' carcinoma ' OR ' cancer' OR ' tumor '): 6,372 results

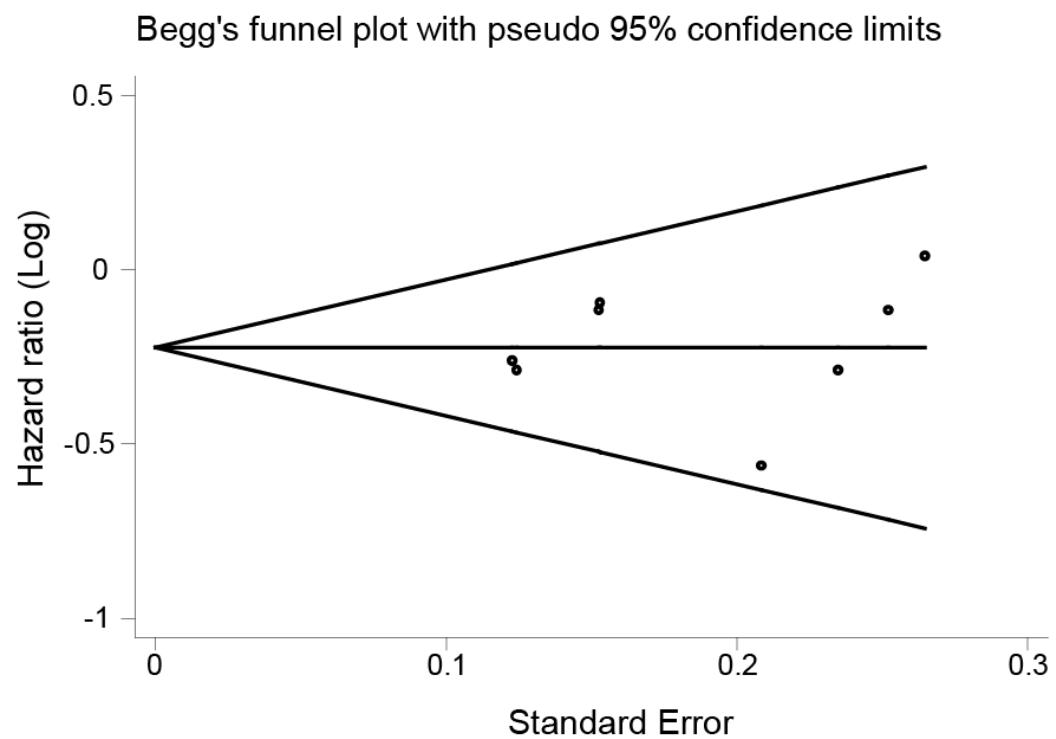
No. 2: AND 'human'/de: 4,984 results

No. 3: AND 'clinical trial'/de: 4,169 results

Cochrane database: 427 results

#1: 'Nivolumab ' OR ' Opdivo ' OR ' ONO-4538 ' OR ' MDX-1106 ' OR ' BMS-936558 ' OR ' Nivo ' OR ' Pembrolizumab ' OR ' lambrolizumab ' OR ' keytruda ' OR ' SCH 900475 ' OR ' MK-3475' OR ' Atezolizumab ' OR ' MSB0010718C ' OR ' Tecentriq ' OR ' RO5541267 ' OR ' RG7446 ' OR ' MPDL3280A ' OR ' Durvalumab ' OR ' MEDI-4736 ' OR ' MEDI4736 ' OR ' checkpoint inhibitor ' OR ' PD-1 ' OR ' PD-L1 ' AND (' carcinoma ' OR ' cancer' OR ' tumor '): 695 results

#2: trials: 427 results



Supplemental Figure 1. Begg's funnel plot for publication bias test. Each circle represents a separate study for indicated association. Horizontal line, mean effect size.

Supplemental Table 1. Risk of bias of the included trials

Study	Randomization	Allocation concealment	Blinding of participants and staff	Blinding of outcome assessors	Incomplete outcome data	Selective outcome reporting	Other sources of bias
CheckMate 017	Low	Low	High	Low	High	Low	Low
CheckMate 025	Low	Low	High	Low	High	High	Low
CheckMate 057	Low	Low	High	Low	Low	Low	Low
CheckMate 141	Low	Low	High	Low	Low	Low	Low
KEYNOTE-006	Low	Low	High	Low	High	High	Low
KEYNOTE-045	Low	Unclear	High	Low	High	High	Low
OAK	Low	Low	High	Low	High	High	Low
POPLAR	Low	Low	High	Low	Low	Low	Low