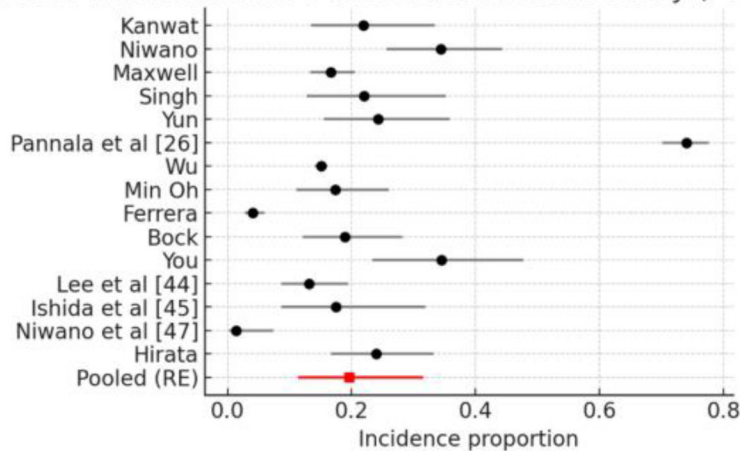


| | | | | | | | | | | |
|----|----------------------|---|---|---|---|---|---|---|---|---|
| 26 | Shaw et al. [43] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 27 | Niwano et al. [44] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 28 | Maxwell et al. [45] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 29 | Maignan et al. [46] | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 6 |
| 30 | Wang et al. [47] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 31 | Yoo et al. [48] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 32 | Schranz et al. [49] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 33 | Thomas et al. [50] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 34 | Hamad et al. [51] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 35 | Yamada et al. [52] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 36 | Yamamoto et al. [53] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 37 | Mayeux et al. [54] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 38 | Lee et al. [55] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 39 | Kusakabe [56] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 40 | Karlin et al. [57] | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 7 |
| 41 | Nguyen et al. [58] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 42 | Elliott et al. [59] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 43 | Burkhart et al. [60] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 44 | Hirata et al. [61] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| 45 | White et al. [62] | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 7 |

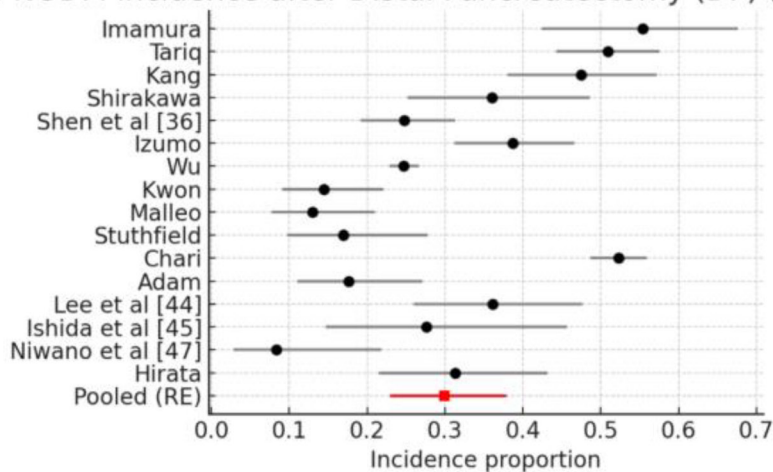
Supplementary File 2

A. Incidence rates

Forest plot: NODM incidence after Pancreaticoduodenectomy (PD) (Random-effects pooled)



Forest plot: NODM incidence after Distal Pancreatectomy (DP) (Random-effects pooled)

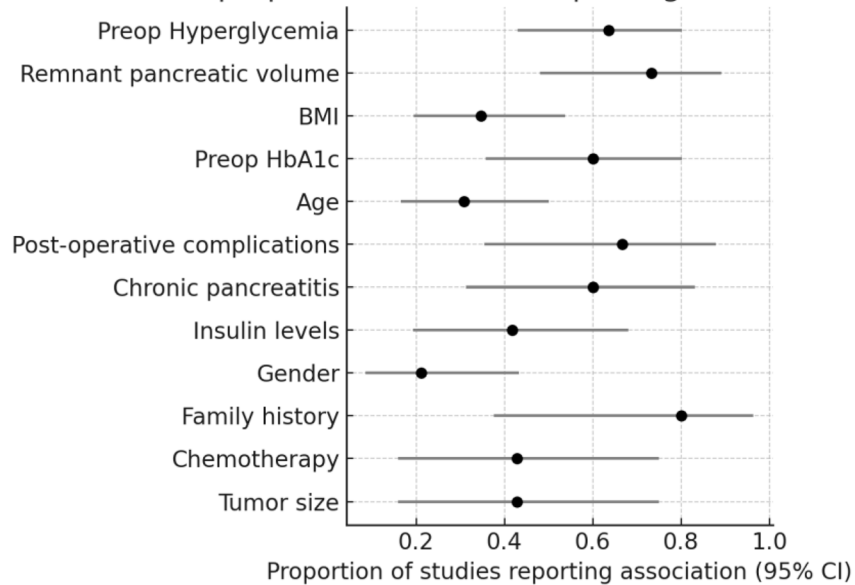


For Pancreatico-Duodenectomy (PD) group, the pooled incidence is 23.2% with 95% CI: 11.4% to 31.6%, with large heterogeneity.

For Distal pancreatectomy (DP) group, the pooled incidence is 26.3% with 95% CI: 22.9% to 37.9% with moderate heterogeneity.

B. Risk factor analysis

Weight of evidence: proportion of studies reporting each factor associated with NODM



Factors with the strongest weight of evidence

1. Preoperative hyperglycemia — analysed in 22 studies; reported associated in 14 studies.
Proportion = 64% (95% CI \approx 46–78%).
2. Remnant pancreatic volume — analysed in 15; reported associated in 11.
Proportion = 73% (95% CI \approx 46–89%).
3. BMI — analysed in 26; reported associated in 9.
Proportion = 35% (95% CI \approx 21–52%).
4. Preop HbA1c — analysed in 15; reported assoc in 9.
Proportion = 60% (95% CI \approx 36–79%).
5. Age — analysed in 26; reported assoc in 8.
Proportion = 31% (95% CI \approx 18–47%).
6. Post-operative complications (e.g., POPF/infections) — analysed in 9; reported assoc in 6.
Proportion = 67% (95% CI \approx 37–88%).
7. Chronic pancreatitis — analysed in 10; reported assoc in 6.
Proportion = 60% (95% CI \approx 31–83%).

Supplementary File 3

Search strategy

The detailed search strategy for the included studies, formatted according to the Peer Review of Electronic Search Strategies (PRESS) guidelines as follows

PubMed Search Strategy

((“diabetes mellitus”[MeSH Terms] OR (“diabetes”[All Fields] AND “mellitus”[All Fields]) OR “diabetes mellitus”[All Fields]) AND (“pancreatic neoplasms”[MeSH Terms] OR (“pancreatic”[All Fields] AND “neoplasms”[All Fields]) OR “pancreatic neoplasms”[All Fields] OR (“pancreatic”[All Fields] AND “cancer”[All Fields]) OR “pancreatic cancer”[All Fields]) AND (“pancreatectomy”[MeSH Terms] OR “pancreatectomy”[All Fields] OR “pancreatectomies”[All Fields])) AND (systematicreview[Filter])

Translations

diabetes mellitus: “diabetes mellitus”[MeSH Terms] OR (“diabetes”[All Fields] AND “mellitus”[All Fields]) OR “diabetes mellitus”[All Fields]

pancreatic cancer: “pancreatic neoplasms”[MeSH Terms] OR (“pancreatic”[All Fields] AND “neoplasms”[All Fields]) OR “pancreatic neoplasms”[All Fields] OR (“pancreatic”[All Fields] AND “cancer”[All Fields]) OR “pancreatic cancer”[All Fields]

pancreatectomy: “pancreatectomy”[MeSH Terms] OR “pancreatectomy”[All Fields] OR “pancreatectomies”[All Fields]