A systematic review of pancreaticoduodenectomy for pancreatic cancer in randomised control trials to examine variations in operative technique



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Background



Pancreatoduodenectomy (PD): A complex surgical intervention comprising multiple components.



Variations in delivery may introduce bias into randomised controlled trials (RCTs) & impair the accurate interpretation of results undertaken.



To assess how PD, has been delivered & monitored within RCTs.

Methods



RCTs of PD: January 2020 to March 2023.
Technical components of PD broken down into categories & subcategorised into 41 components.



Examination of the components described & standardised, and the delivery of PD was recorded.

Results

83 Screened articles

16 Countries



29 RCTs Included

3440 patients





No studies described all components of PD in the methods or trial protocol (table 1)



RCTs: No Component Parts Described



RCT: 15/41 Component Described (Best)



RCTs with Operative Photographs.



RCTs: PD Delivery was not Recorded

Inclusion & Exclusion Criteria



All English-language RCTs published involving adult patients undergoing PD.



Non-English language manuscripts.
Non-RCTs pre-clinical or cadaveric studies.
Studies published in Abstract Format.
Distal or total pancreatectomy, Robotic PD.

Conclusion



Descriptions of the PD were **inadequate** & standardisation **unclear**.

A clear description is warranted to:

- · Reduce variation in outcomes
- Reduce bias in RCTs
- Facilitate cross-RCT comparisons in SR

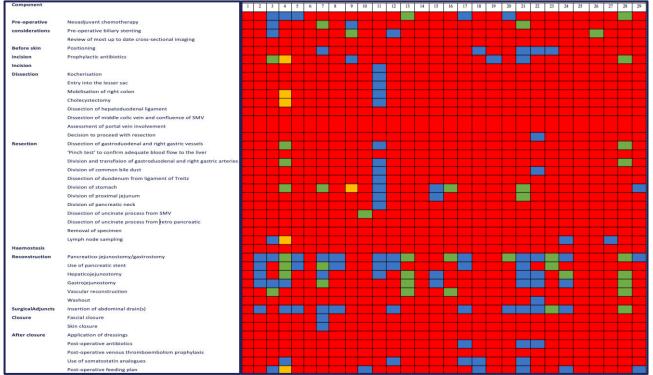


Table 1 - Description of component parts across trials. Green = component described, flexibility permitted; blue = component described, no flexibility permitted; yellow = component described, flexibility not specified; red = component not described.