Randomized Controlled Trial	Bias due to randomization	Bias due to deviation from intended intervention	Bias due to missing data	Bias due to outcome measurement	Bias due to selection of reported result	Overall
Elwatidy	Low	Low	Low	Low	Low	Low
Goobie	Low	Low	Low	Low	Low	Low
Halanski	Some concerns	Some concerns	Some concerns	Some concerns	Low	Some concerns
Hasan	Low	Low	Low	Low	Low	Low
Ramkiran	High	Some concerns	Low	Some concerns	Low	Some concerns
Sethna	Low	Low	Low	Some concerns	Low	Low
Shi	Low	Low	Some concerns	Low	Low	Low
Zhang	High	Low	Low	Low	Low	Some concerns

Risk of bias was assessed using the Cochrane ROB2 tool for randomized trials

Appendix 1a – Table showing the results of risk of bias assessments for RTCs.

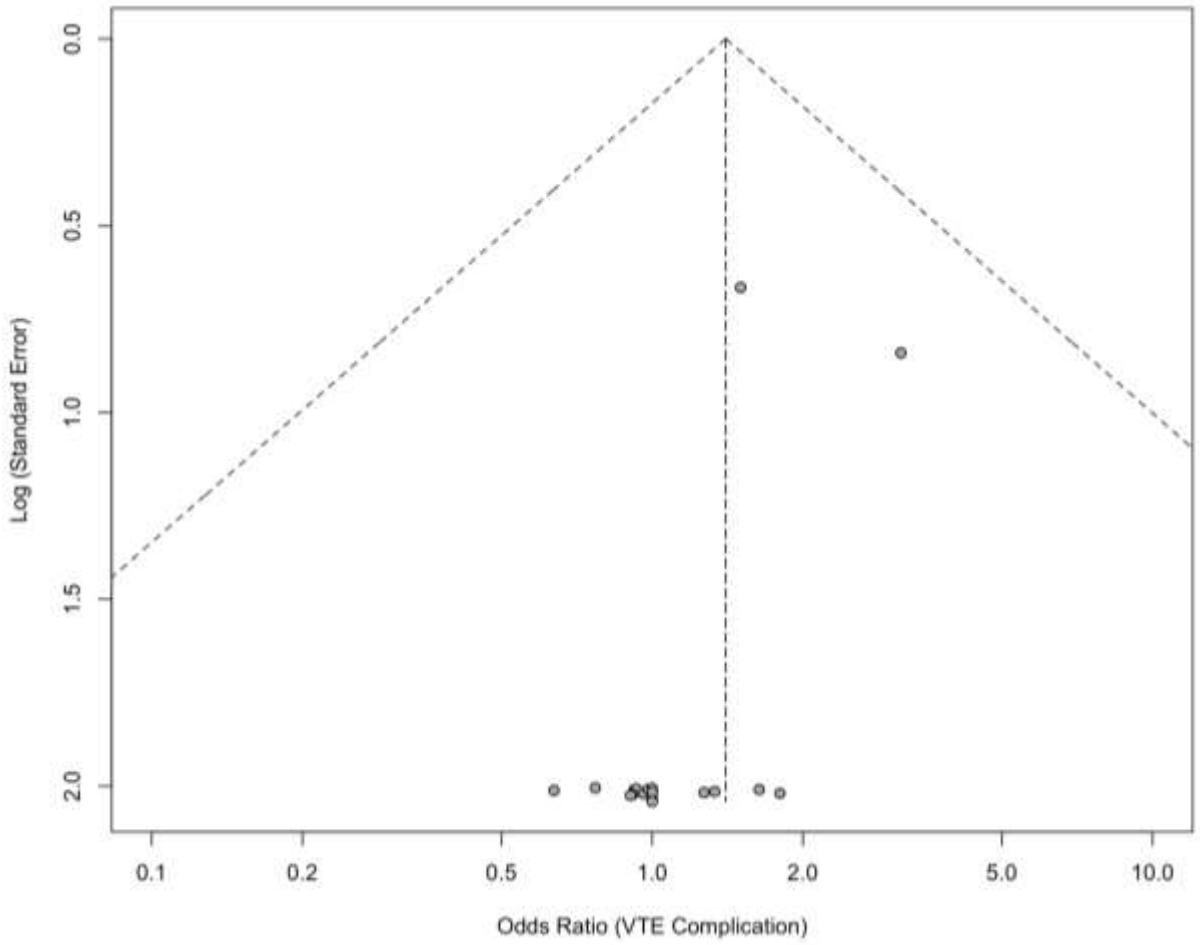
Retrospective Cohort Studies	Newcastle-Ottawa Score
Ahlers	7
Chou	6
DaRocha	7
Dhawale	8
Haddad	6
Johnson	5
Kushioka	7
Lykissas	7
Ng	5
Raman	9
Shapiro	8
Sui	8
Tumber	7
Xie	6

Risk of bias was assessed using the Newcastle Ottawa Scale for retrospective cohort studies, with a score of 7-9 classified as low risk of bias, and a score of 4-6 as a high risk of bias

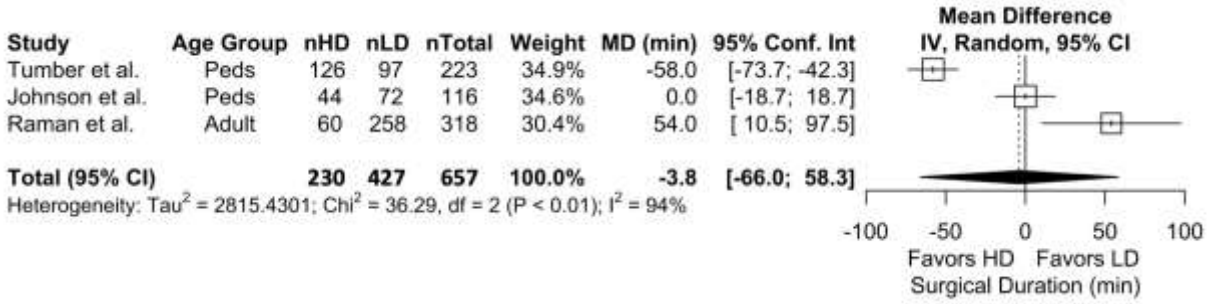
Appendix 1b – Table showing the results of risk of bias assessments for retrospective cohort studies.

Outcomes	Statistical Method Details
Medical complications VTE complications Surgical complications	Details on meta-analytical method: - Mantel-Haenszel method - Paule-Mandel estimator for tau^2 - Treatment arm continuity correction in studies with zero cell frequencies - Studies with double zeros included in meta-analysis
Intra-Op Transfusion Events Peri-Op Transfusion Events	Details on meta-analytical method: - Mantel-Haenszel method - Restricted maximum-likelihood estimator for tau^2
Intra-Op Transfusion Vol Peri-Op Transfusion Vol Surgical Duration	Details on meta-analytical method: - Inverse variance method - Restricted maximum-likelihood estimator for tau^2 - Q-profile method for confidence interval of tau^2 and tau

Appendix 2 – Table showing the parameters with which meta-analyses were performed using the 'meta' package in RStudio for the various outcomes of interest.



Appendix 3 – Funnel plot performed on the outcome VTE complications. The natural log of standard error is given on the y-axis.



Appendix 4 - Meta-analysis with a random effects model comparing surgical duration (min) between high-dose (HD) and low-dose (LD) cohorts across all age groups. nHD = number of HD patients, nLD = number of LD patients, nTotal = total patients. MD = mean difference, IV = inverse variance, df = degrees of freedom.