Data Supplement

Table of Contents

[Data Supplement 1: PubMed search syntax and search string 2](#_Toc75100525)

[Data Supplement 3: References of all excluded studies with reasons for exclusion 5](#_Toc75100526)

[Data Supplement 4: Quality assessment of the included systematic reviews 10](#_Toc75100527)

[Data Supplement 5: Graphical presentation of corrected covered area for the primary outcome 11](#_Toc75100528)

[Data Supplement 6: Efficacy of different PDE5 inhibitors compared to each other 13](#_Toc75100529)

[Data Supplement 7: Safety of different PDE5 inhibitors 14](#_Toc75100530)

# Data Supplement 1: PubMed search syntax and search string

**Search syntax**

**ID Search**

#1 Sildenafil [All Fields]

#2 Avanafil [All Fields]

#3 Tadalafil [All Fields]

#4 Vardenafil [All Fields]

#5 Mirodenafil [All Fields]

#6 Lodenafil [All Fields]

#7 Udenafil [All Fields]

#8 Phosphodiesterase-5 [All Fields]

#9 Phosphodiesterase 5 [All Fields]

#10 Phosphodiesterase Five [All Fields]

#11 Sildenafil Citrate [MeSH Terms]

#12 Phosphodiesterase 5 Inhibitors [MeSH Terms]

#13 OR #1-12

#14 Sexual [All Fields]

#15 Orgasm [All Fields]

#16 Erectile [All Fields]

#17 Erection [All Fields]

#18 Impotence [All Fields]

#19 IIEF [All Fields]

#20 Orgasm [MeSH Terms]

#21 Erectile Dysfunction [MeSH Terms]

#22 Penile Erection [MeSH Terms]

#23 OR #14-22

#24 Meta-Analysis [All Fields]

#25 Metanalysis [All Fields]

#26 Meta Analysis [All Fields]

#27 Meta-analysis [Publication Type]

#28 Systematic Review [All Fields]

#29 Systematic Review [Publication Type]

#30 OR #24-29

#31 #13 AND #23 AND #30

**Search string**

("sildenafil citrate"[MeSH Terms] OR ("sildenafil"[All Fields] AND "citrate"[All Fields]) OR "sildenafil citrate"[All Fields] OR "sildenafil"[All Fields] OR "sildenafil s"[All Fields] OR ("avanafil"[Supplementary Concept] OR "avanafil"[All Fields]) OR ("vardenafil dihydrochloride"[MeSH Terms] OR ("vardenafil"[All Fields] AND "dihydrochloride"[All Fields]) OR "vardenafil dihydrochloride"[All Fields] OR "vardenafil"[All Fields]) OR ("tadalafil"[MeSH Terms] OR "tadalafil"[All Fields]) OR ("mirodenafil"[Supplementary Concept] OR "mirodenafil"[All Fields]) OR "lodenafil"[All Fields] OR ("udenafil"[Supplementary Concept] OR "udenafil"[All Fields]) OR ("cyclic nucleotide phosphodiesterases, type 5"[MeSH Terms] OR "type 5 cyclic nucleotide phosphodiesterases"[All Fields] OR "phosphodiesterase 5"[All Fields] OR ("cyclic nucleotide phosphodiesterases, type 5"[MeSH Terms] OR "type 5 cyclic nucleotide phosphodiesterases"[All Fields] OR "phosphodiesterase 5"[All Fields]) OR (("phosphoric diester hydrolases"[MeSH Terms] OR ("phosphoric"[All Fields] AND "diester"[All Fields] AND "hydrolases"[All Fields]) OR "phosphoric diester hydrolases"[All Fields] OR "phosphodiesterase"[All Fields] OR "phosphodiesterases"[All Fields]) AND "five"[All Fields]) OR "phosphodiesterase 5 inhibitors"[MeSH Terms])) AND ("sexual behavior"[MeSH Terms] OR ("sexual"[All Fields] AND "behavior"[All Fields]) OR "sexual behavior"[All Fields] OR "sexual"[All Fields] OR "sexually"[All Fields] OR "sexualities"[All Fields] OR "sexuality"[MeSH Terms] OR "sexuality"[All Fields] OR "sexualization"[All Fields] OR "sexualize"[All Fields] OR "sexualized"[All Fields] OR "sexualizing"[All Fields] OR "sexuals"[All Fields] OR ("orgasm"[MeSH Terms] OR "orgasm"[All Fields] OR "orgasmic"[All Fields] OR "orgasms"[All Fields]) OR ("erectility"[All Fields] OR "penile erection"[MeSH Terms] OR ("penile"[All Fields] AND "erection"[All Fields]) OR "penile erection"[All Fields] OR "erectile"[All Fields]) OR ("erections"[All Fields] OR "erective"[All Fields] OR "penile erection"[MeSH Terms] OR ("penile"[All Fields] AND "erection"[All Fields]) OR "penile erection"[All Fields] OR "erection"[All Fields]) OR ("erectile dysfunction"[MeSH Terms] OR ("erectile"[All Fields] AND "dysfunction"[All Fields]) OR "erectile dysfunction"[All Fields] OR "impotence"[All Fields] OR "impotent"[All Fields] OR "impotency"[All Fields]) OR "IIEF"[All Fields] OR "orgasm"[MeSH Terms] OR "erectile dysfunction"[MeSH Terms] OR "penile erection"[MeSH Terms]) AND ("systematic review"[Publication Type] OR "systematic reviews as topic"[MeSH Terms] OR "systematic review"[All Fields] OR ("meta analysis"[Publication Type] OR "meta analysis as topic"[MeSH Terms] OR "meta analysis"[All Fields]))

The search strategy was modified accordingly for the other databasesData Supplement 2: Flow diagram of study selection process



Data Supplement 2: Flow diagram of study selection process. MA: meta-analysis; RCT: randomized controlled trial; SR: systematic review.

# Data Supplement 3: References of all excluded studies with reasons for exclusion

Systematic reviews with no relevant outcome

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Overlapping systematic reviews

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# Data Supplement 4: Quality assessment of the included systematic reviews

| Study | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Total score |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Allen 2019 | 1 | 0 | 0 | 0.5 | 1 | 1 | 0 | 0.5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 7 |
| Chen 2015 | 1 | 0.5 | 0 | 0 | 0 | 1 | 0 | 0.5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 5 |
| D’Andrea 2019 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 14 |
| Kallidonis 2020 | 1 | 1 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 12.5 |
| Lai 2019 | 1 | 0 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 9.5 |
| Li 2019 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 14 |
| Liao 2019 | 1 | 1 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 12.5 |
| Liu 2019 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 13 |
| Madeira 2020 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 14 |
| Munk 2019 | 1 | 0.5 | 1 | 0.5 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| Mykoniatis 2021 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 15 |
| Perdomo 2017 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 11 |
| Schmidt 2014 | 1 | 0.5 | 1 | 0.5 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 12 |
| Shabsigh 2007 | 1 | 0.5 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 6.5 |
| Tan 2017 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 0.5 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 8.5 |
| Taylor 2013 | 1 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 14.5 |
| Tian 2017 | 1 | 0.5 | 1 | 0.5 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 10 |
| Vecchio 2010 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 1 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7.5 |
| Wang 2020 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 0.5 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 12.5 |
| Xiao 2012 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 12 |
| Yuan 2013 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 13 |
| Zhou 2019 | 1 | 0.5 | 1 | 0.5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 13 |
| Zhu 2020 | 1 | 0.5 | 1 | 0.5 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 10 |

Data Supplement 4: Quality assessment of the included systematic reviews based on AMSTAR 2.

# Data Supplement 5: Graphical presentation of corrected covered area for the primary outcome



Data Supplement 5: Pairwise intersection heatmap showing the degree of overlap for the primary outcome. The color-coded cells within the triangular matrix demonstrate the % corrected covered area (CCA) for pairs of SRs. The darker the color, the higher the % CCA. The diagonal grey-colored cells indicate the total number of primary studies included in each review.

# Data Supplement 6: Efficacy of different PDE5 inhibitors compared to each other



Data Supplement 6: Efficacy of different PDE5 inhibitors in the general population compared to each other. CI: confidence interval; ED: erectile dysfunction; GRADE: grading of recommendations assessment, development and evaluation; NA: not available; PDE5: phosphodiesterase type 5; RCT: randomized controlled trial; WMD: weighted mean difference.

# Data Supplement 7: Safety of different PDE5 inhibitors



Data Supplement 7.1: Safety of different PDE5 inhibitors in the general population compared to placebo. AE: adverse event; CI: confidence interval; ED: erectile dysfunction; GRADE: grading of recommendations assessment, development and evaluation; NA: not available; OR: odds ratio; PDE5: phosphodiesterase type 5; RCT: randomized controlled trial.



Data Supplement 7.2: Safety of different PDE5 inhibitors in the general population compared to each other. AE: adverse event; CI: confidence interval; ED: erectile dysfunction; GRADE: grading of recommendations assessment, development and evaluation; NA: not available; OR: odds ratio; PDE5: phosphodiesterase type 5; RCT: randomized controlled trial.