**Supplement 1. Literature Search Details**

1. **Result Numbers**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Topic** | **Total Citations (MEDLINE)** | **Total Citations (PubMed)** | **Unique Citations (PubMed)** | **Total Citations (Embase)** | **Unique Citations (Embase)**  | **Total Citatations (Cochrane)** | **Unique Citations (Cochrane)** |  |  |
| Robot vs lap | 19 | 20 | 1 | 24 | 6 | 4 | 3 |  |  |
| Perineal | 27 | 46 | 5 | 52 | 8 | 3 | 0 |  |  |
| Ventral vs Suture | 4 | 4 | 0 | 4 | 0 | 0 | 0 |  |  |
| Other Ventral Articles | 35 | 37 | 2 | 35 | 3 | 4 | 4 |  |  |
| Anterior | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |
| Posterior | 6 | 5 | 0 | 3 | 0 | 1 | 0 |  |  |
| Suture/Resection | 28 | 28 | 1 | 21 | 3 | 3 | 1 |  |  |
| Nonoperative | 11 | 11 | 0 | 168 | 78 | 0 | 0 |  |  |
| Diagnosis | 246 | 248 | 3 | 45 | 26 | 12 | 1 |  |  |
| Etiology | 36 | 34 | 2 | 104 | 45 | 9 | 8 |  |  |
| Recurrence | 28 | 26 | 3 | 19 | 7 | 2 | 2 |  |  |
| Constipation/Incontinence | 11 | 30 | 5 | 46 | 16 | 2 | 1 |  |  |
| All other surgical articles | 86 | 79 | 8 | 0 | 0 | 4 | 2 |  |  |
| **Total** | **537** | **568** | **30** | **521** | **192** | **44** | **22** |  |  |
|  |  |  |  |  |  |  |  |  |  |
| **All Citations Retrieved from Databases** | 1670 |  |  |  |  |  |  |  |  |
| **Duplicates** | 889 |  |  |  |  |  |  |  |  |
| **Unique Citations**  | 781 |  |  |  |  |  |  |  |  |
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1. **Tag Keys**

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| --- | --- |
| **Tag** | **Search** |
| robot | Robot vs laparoscopic surgery |
| perineal |  |
| Ventral suture | Ventral versus suture |
| ventral | Any other articles on the ventral approach |
| anterior |  |
| posterior |  |
| suture |  |
| Natural hx | Natural history without surgery |
| dx | Diagnosis |
| etiology |  |
| ci | Constipation or incontinence outcomes |
| misc | Anything not in the above searches |
|  |  |

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| **#** | **Strategy** |
| **1** | Rectal Prolapse/ |
| **2** | ((rectal or rectum) and (prolapse or procidentia)).ti,ab. |
| **3** | 1 or 2 |
| **4** | limit 3 to (english language and yr="2010 -Current") |
| **5** | animals/ not humans/ |
| **6** | (systematic or "meta analysis" or metaanalysis or metasynthesis or meta synthesis).ti. |
| **7** | limit 3 to (meta analysis or systematic reviews) |
| **8** | 4 and 6 |
| **9** | 7 or 8 |
| **10** | limit 4 to "review articles" |
| **11** | 10 not 9  |
| **12** | limit 4 to (clinical conference or comment or congresses or consensus development conference or consensus development conference, nih or editorial or guideline or letter or overall or practice guideline) |
| **13** | 4 not (5 or 11 or 12) |
| **14** | remove duplicates from 13 |
| **15** | exp Laparoscopy/ |
| **16** | (laparoscopy or laparoscopic).ti,ab. |
| **17** | 15 or 16 |
| **18** | Robotic Surgical Procedures/ |
| **19** | (robotic or robot).ti,ab. |
| **20** | 18 or 19 |
| **21** | (altemeier or altemeier's or "perineal rectosigmoidectomy" or delorme or "mucosal sleeve resection" or "perineal proctosigmoidectomy").ti,ab. |
| **22** | ("ventral rectopexy" or d'hoore).ti,ab. |
| **23** | ("suture rectopexy" or "resection rectopexy").ti,ab. |
| **24** | ("anterior mesh rectopexy" or ripstein).ti,ab. |
| **25** | ("posterior mesh rectopexy" or "wells rectopexy").ti,ab. |
| **26** | Treatment Refusal/ or exp disease progression/ |
| **27** | (nonoperative or untreated or unmanaged or "natural history" or progression or refusal or nonoperated or nonsurgical).ti,ab. |
| **28** | 26 or 27 |
| **29** | exp diagnosis/ |
| **30** | (sensitiv: or predictive value:).mp. or accurac:.tw. |
| **31** | 29 or 30 |
| **32** | (risk or mortality).mp. or cohort.tw |
| **33** | exp Recurrence/ |
| **34** | recurrence.ti,ab. |
| **35** | 33 or 34 |
| **36** | exp Treatment Outcome/ |
| **37** | outcome\*.ti,ab. |
| **38** | 36 or 37 |
| **39** | (constipation OR incontinence).ti,ab. |
| **40** | constipation/ OR fecal incontinence/ |
| **41** | 39 or 40 |
| **42** | su.fs. |
| **43** | Colorectal Surgery/ |
| **44** | (rectopexy or operative or surgical or surgery).ti,ab. |
| **45** | 42 or 43 or 44 |
| **46** | 17 and 20 |
| **47** | 14 and 46 |
| **48** | (14 and 21) not 47 |
| **49** | 22 and 23 |
| **50** | (14 and 49) not (47 or 48) |
| **51** | (14 and 22) not (47 or 48 or 50) |
| **52** | (14 and 24) not (47 or 48 or 50 or 51) |
| **53** | (14 and 25) not (47 or 48 or 50 or 51 or 52) |
| **54** | (14 and 23) not (47 or 48 or 50 or 51 or 52 or 53) |
| **55** | (14 and 28) not (47 or 48 or 50 or 51 or 52 or 53 or 54) |
| **56** | (14 and 31) not (47 or 48 or 50 or 51 or 52 or 53 or 54 or 55) |
| **57** | (14 and 32) not (47 or 48 or 50 or 51 or 52 or 53 or 54 or 55 or 56) |
| **58** | (14 and 35) not (47 or 48 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57) |
| **59** | 38 and 41 |
| **60** | (14 and 59) not (47 or 48 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58) |
| **61** | (14 and 45) not (47 or 48 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 60) |

1. **Sample Strategy**