## Supplementary Table 1. Excluded studies with a cause of exclusion.

| Cause of exclusion | Study |
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| **No data on relevant outcome (POD incidence, mortality rate, PACU/hospital length of stay)** | 1. Chen L, Xu M, Li GY, Cai WX, Zhou JX. Incidence, Risk Factors and Consequences of Emergence Agitation in Adult Patients after Elective Craniotomy for Brain Tumor: A Prospective Cohort Study. PLoS One. 2014 Dec 10;9(12):e114239. doi: 10.1371/journal.pone.0114239. PMID: 25493435; PMCID: PMC4262354. |
| | 2. Huang HW, Yan LM, Yang YL, He X, Sun XM, Wang YM, Zhang GB, Zhou JX. Bi-frontal pneumocephalus is an independent risk factor for early postoperative agitation in adult patients admitted to intensive care unit after elective craniotomy for brain tumor: A prospective cohort study. PLoS One. 2018 Jul 19;13(7):e0201064. doi: 10.1371/journal.pone.0201064. PMID: 30024979; PMCID: PMC6053234. |
| | 3. Kang X, Lin K, Tang H, Tang X, Bao F, Gan S, Zhu S. Risk Factors for Emergence Agitation in Adults Undergoing Thoracoscopic Lung Surgery: A Case-Control Study of 1,950 Patients. J Cardiothorac Vasc Anesth. 2020 Sep;34(9):2403-2409. doi: 10.1053/j.jvca.2020.02.046. Epub 2020 Mar 2. PMID: 32418835. |
| | 4. Makarem J, Larijani AH, Eslami B, Jafarzadeh A, Karvandian K, Mireskandari SM. Risk factors of inadequate emergence following general anesthesia with an emphasis on patients with substance dependence history. Korean J Anesthesiol. 2020 Aug;73(4):302-310. doi: 10.4097/kja.19214. Epub 2019 Oct 15. PMID: 31612693; PMCID: PMC7403114. |
| | 5. Pipanmekaporn T, Punjasawadwong Y, Raksakietisak M, Sriraj W, Lekprasert V, Werawatganon T. A study into perioperative anaesthetic adverse events in Thailand (PAAd THAI): An analysis of suspected emergence delirium. J Perioper Pract. 2018 Jan 1:1750458918780117. doi: 10.1177/1750458918780117. Epub ahead of print. PMID: 29901431. |
| | 6. Ramroop R, Hariharan S, Chen D. Delirium do despertar após anestesia com sevoflurano em adultos: estudo observacional prospectivo [Emergence delirium following sevoflurane anesthesia in adults: prospective observational study]. Braz J Anesthesiol. 2019 May-Jun;69(3):233-241. doi: 10.1016/j.bjan.2018.12.003. Epub 2019 May 7. PMID: 31076155; PMCID: PMC9391875. |
| | 7. Rim, Jong & Kim, Jung & Hong, Jeong & Park, Sang Yoong & Lee, Jong & Chung, Chanjong. (2016). Risk factors of emergence agitation after general anesthesia in adult patients. Anesthesia and Pain Medicine. 11. 410-416. 10.17085/apm.2016.11.4.410. |

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| | 8. Umholtz M, Cilnyk J, Wang CK, Porhomayon J, Pourafkari L, Nader ND. Postanesthesia emergence in patients with post-traumatic stress disorder. J Clin Anesth. 2016 Nov;34:3-10. doi: 10.1016/j.jclinane.2016.02.047. Epub 2016 May 2. PMID: 27687337. |
| | 9. Ye C, Zhang Y, Luo S, Cao Y, Gao F, Wang E. Correlation of Serum BACE1 With Emergence Delirium in Postoperative Patients: A Preliminary Study. Front Aging Neurosci. 2020 Oct 28;12:555594. doi: 10.3389/fnagi.2020.555594. PMID: 33192455; PMCID: PMC7655534. |
| | 10. Koo YH, Choi GJ, Kang H, Jung YH, Woo YC, Choi YJ, Baek CW. Effect of Flumazenil on Emergence Agitation after Orthognathic Surgery: A Randomized Controlled Trial. J Pers Med. 2022 Mar 7;12(3):416. doi: 10.3390/jpm12030416. PMID: 35330416; PMCID: PMC8950831. |
| | 11. Awada HN, Steinthorsdottir KJ, Schultz NA, Hillingsø JG, Larsen PN, Jans Ø, Kehlet H, Aasvang EK. High-dose preoperative glucocorticoid for prevention of emergence and postoperative delirium in liver resection: A double-blinded randomized clinical trial substudy. Acta Anaesthesiol Scand. 2022 Jul;66(6):696-703. doi: 10.1111/aas.14057. Epub 2022 Apr 11. PMID: 35325467; PMCID: PMC9320957. |
| **Medical**<br><br>**(non-surgical) patients** | 12. Almeida TM, Azevedo LC, Nosé PM, Freitas FG, Machado FR. Risk factors for agitation in critically ill patients. Rev Bras Ter Intensiva. 2016 Oct-Dec;28(4):413-419. doi: 10.5935/0103-507X.20160074. PMID: 28099638; PMCID: PMC5225916. |
| | 13. Jaber S, Chanques G, Altairac C, Sebbane M, Vergne C, Perrigault PF, Eledjam JJ. A prospective study of agitation in a medical-surgical ICU: incidence, risk factors, and outcomes. Chest. 2005 Oct;128(4):2749-57. doi: 10.1378/chest.128.4.2749. PMID: 16236951. |

PACU, Post Anesthesia Care Unit; POD, Postoperative Delirium