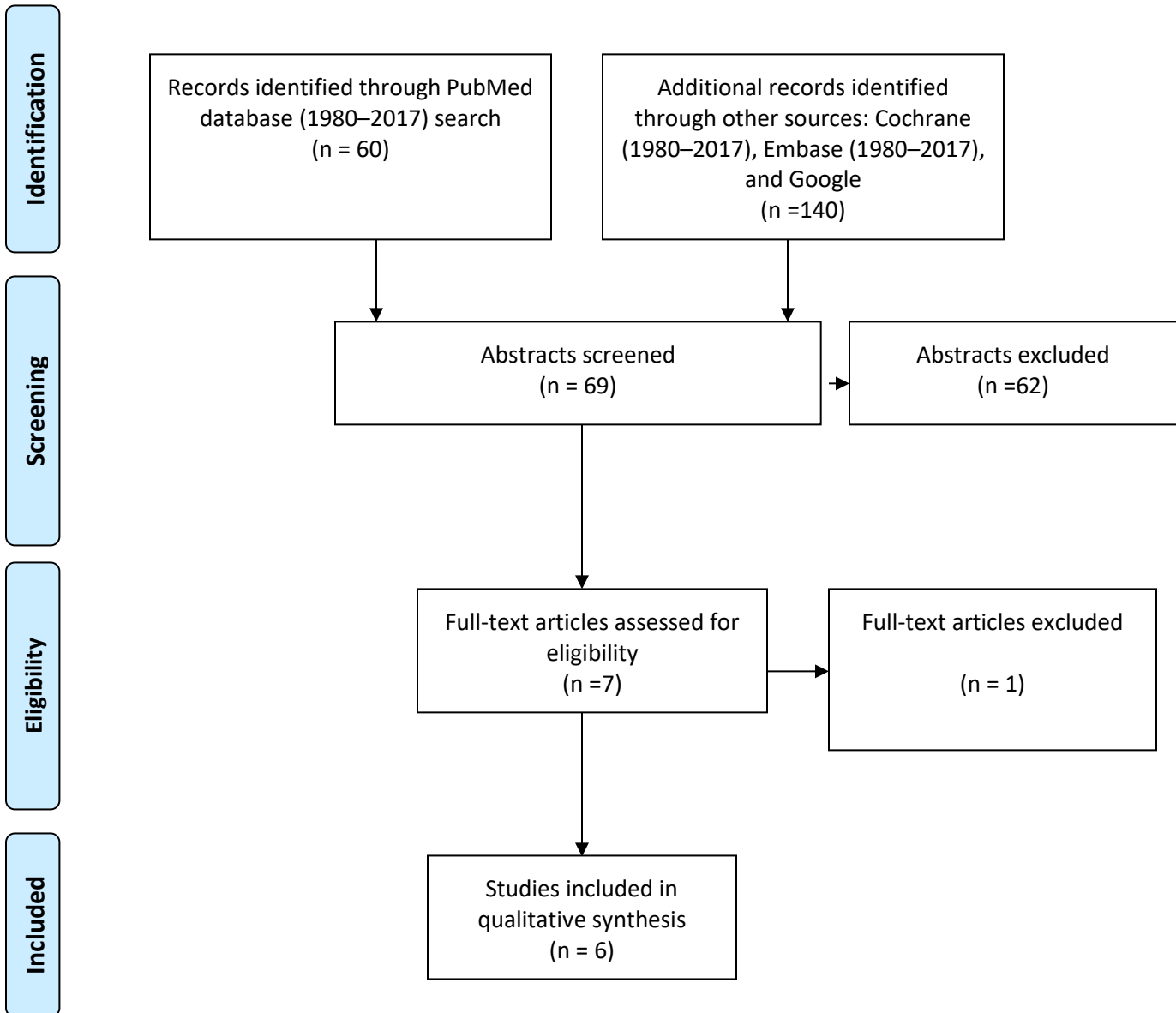


Supplemental Digital Content 3. Question 1c, (Query 3): What is the succinylcholine administration rate with and without volatile anesthetics in ambulatory surgical centers?



Summary: There were no studies specifically addressing succinylcholine (**sux**) administration rate in ambulatory surgery centers. However, 6 studies compared sux (n=202 subjects) to other agents with respect to intubating conditions, myalgias, and effectiveness. These studies inferred that sux was used in ambulatory surgery centers.

Article Identifier	Number (%) receiving Sux	Support of Hypothesis/ Description	Bias	Comments	OCEBM* Level of Evidence
1	21 (52%)	Weak/results could be due to lidocaine alone	High. Relied on patient reporting of muscle pain	Study does not convey how many anesthesiologists assessed intubating conditions thus allowing for subjectivity.	4
2	20 (33%)	High/Sux provided fastest and best intubating conditions and would most likely remain the muscle relaxant of choice for rapid sequence intubation	High. Anesthesiologist not blinded as to which muscle relaxant patient received. Multiple anesthesiologists involved in intubations.	Study recognizes ease of intubation is function of operator skill, depth of anesthesia, and neuromuscular blockade adequacy.	4
3	10 (33%)	High/ Precise measurements by stimulators although do not mention how many investigators performed laryngoscopy	Low; blinded investigators	Well executed study; standard protocol, blinded investigators.	4
4	48 (48%)	Unreliable/Arbitrary parameters placed with respect to time ready for intubation by	High. Biased with respect to determination of when patient ready for intubation by	No standard protocol; comparing three different drugs with different onset of actions and then	4

		investigators	averaging onset of action time	evaluating “time” ready for intubation.	
5	61 (51%)	Very high/same surgical procedure fiberoptic intubations for all vs laryngoscopy to eliminate possible trachea trauma as cause for myalgias	Low: Both patients and research nurse were blinded as to group	Well controlled study; able to zero in on post-operative myalgias	4
6	26 (43%)	Weak/no mention of how many different providers did intubation/what kind of intubation (direct/fiberoptic, etc.) Varied types of surgeries: ear, nose, and throat, gynecologic, plastic, orthopedic. Varied operative procedures do not allow for pure evaluation of sux	Low: Single blind-patients in both groups had similar complaints of myalgias.	This study disputes many others showing precurarization decreases myalgias. Too many varied surgical procedures in study group to allow for any evaluation of myalgias solely due to the sux use.	4

- OCEBM=Oxford centre for evidence-based medicine

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