

Itamar Ben Shitrit, Sharon Einav and Nathan Pace

Methods for word cloud creation and word counts:

A data frame was created using the titles and abstracts from all the Cochrane Emergency and Critical Care, Anesthesia, and Injuries reviews. Text mining and data curation were conducted at both the title and abstract levels using the "tm" R package (Ref 1). The text was cleaned by converting to lowercase and replacing special characters with spaces. Punctuation, numbers, and stop words were removed. Text stemming, which reduces words to their root forms for normalization, was applied using the "SnowballC" R package (Ref 2). Following this, words with general and non-relevant meanings were excluded manually (Supplement). The "wordcloud" and "RColorBrewer" R packages generated word frequencies, clouds, and bar plots (Ref 3, Ref 4). All statistical analyses were performed using Rstudio, R version 4.4.0.

Ref 1: Feinerer I, Hornik K (2024). *tm: Text Mining Package*. R package version 0.7-13

Ref 2: Bouchet-Valat, Milan, and Maintainer Milan Bouchet-Valat. "Package 'SnowballC'." *R package version 0.7.0* (2020).

Ref 3: Fellows, Ian, et al. "Package 'wordcloud'." *R package version 2* (2018): 331.

Ref 4: Neuwirth, Erich. "RColorBrewer: ColorBrewer palettes, v1. 1-2." (2022).

Results

Table 1 presents the 100 most frequent words found in the titles of emergency reviews, providing an overview of the most commonly used terms. The word "adults" is the most frequent (frequency=58), following this, "critically" and "ill" (frequency=35), "respiratory" (frequency=25), and "sepsis" (frequency=24). Figure 1 visually represents these frequencies in a word cloud, where larger words correspond to higher frequencies. Figure 2 offers a bar plot of the 30 most frequent words, visually displaying their frequencies in descending order.

Table 1- 100 Most Frequent Words in Emergency Reviews Titles

Word	Frequency
adults	58
critically	35
ill	35
respiratory	25
sepsis	24
care	23
ventilation	19
children	18
intensive	18
distress	17
interventions	15
adult	13
sedation	12
weaning	12
unit	12
mechanical	11
shock	10
covid	10
ventilated	10
agents	9
emergency	9

enteral	8
preventing	7
early	7
mechanically	7
department	7
severe	7
support	7
failure	7
arrest	6
venous	6
septic	6
injury	6
lung	6
ARDS	5
cardiac	5
treating	5
paediatric	5
living	5
anaphylaxis	4
oxygenation	4
automated	4
spontaneous	4
procedural	4

outofhospital	4
central	4
chest	4
management	4
parenteral	4
nutritional	4
altitude	4
tube	4
oxygen	3
antibiotic	3
infections	3
invasive	3
duration	3
nonautomated	3
analgesia	3
cardiopulmonary	3
rapid	3
catheter	3
pneumothorax	3
tracheal	3
critical	3
drugs	3
optimal	3

tracheostomy	3
mortality	3
supplementation	3
rehabilitation	3
bleeding	3
arterial	3
targets	3
neuroprotection	3
blocking	3
interleukin	3
part	3
network	3
propofol	3
endotracheal	3
promotion	3
sleep	3
position	3
adjunctive	2
adrenaline	2
community	2
antibiotics	2
infection	2
single	2

anaesthesia	2
cardioversion	2
electrical	2
extracorporeal	2
membrane	2
nausea	2
setting	2
vomiting	2
antifungal	2
fungal	2

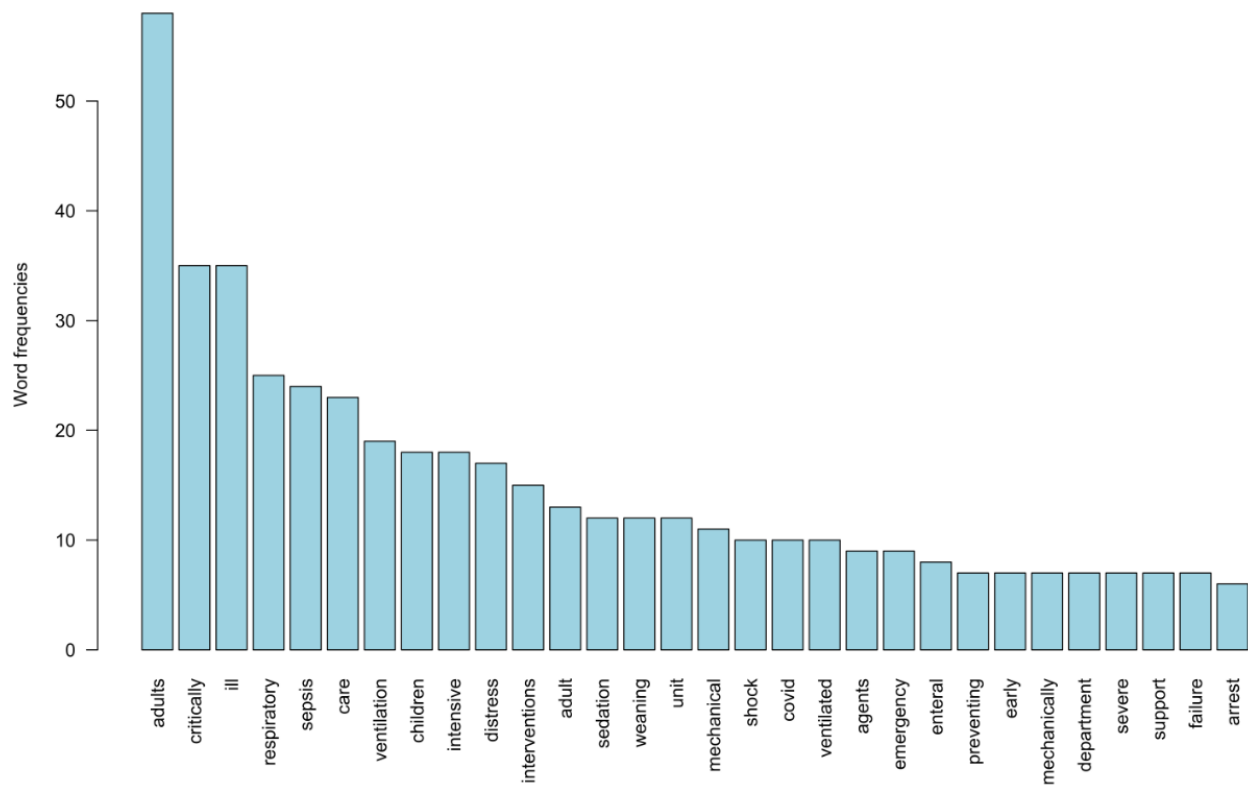


Figure 2- Barplot of the 30 Most Frequent Words in Emergency Reviews Titles

Figure 2 illustrates the frequency of the 30 most common words in emergency review titles. The x-axis represents the words, and the y-axis represents their frequencies. The words are ordered from the most to the least frequent.

Supplement: List of excluded words from the Emergency Review Titles database: [IBS1]

"january", "february", "march", "april", "may", "june", "july", "august", "september", "october", "november", "december", "ten", "nine", "eight", "seven", "six", "participants", "review", "risk", "rr", "studies", "trials", "evidence", "included", "data", "quality", "controlled", "study", "compared", "outcomes", "reported", "bias", "used", "effects", "authors", "trial", "effect", "clinical", "outcome", "adverse", "group", "assessed", "use", "results", "treatment", "events", "randomized", "intervention", "placebo", "acute", "assess", "search", "significant", "standard", "complications", "confidence", "extracted", "identified", "relevant", "undergoing", "reduce", "primary", "randomised", "control", "therapy", "efficacy", "methodological", "reduction", "findings", "criteria", "unclear", "metaanalysis", "pressure", "research", "effective", "analyses", "drug", "assessment", "secondary", "procedures", "reducing", "without", "systematic", "incidence", "determine", "methods", "literature", "prevention", "evaluated", "conclusions", "publication", "measured", "reporting", "required", "serious", "techniques", "eligible", "potential", "identify", "therefore", "excluded", "benefits", "possible", "sensitivity", "improve", "result", "considered", "practice", "recovery", "significantly", "summary", "level", "comparison", "beneficial", "objective", "common", "clinically", "nutrition", "risks", "monitoring", "report", "followup", "related", "strategies", "among", "receiving", "training", "cause", "prevent", "include", "evaluate", "status", "requiring", "compare", "test", "value", "regional", "blinding", "provide", "observed", "systemic", "side", "estimates", "dose", "allocation", "population", "administered", "nerve", "defined", "rotem", "traffic", "interest", "cognitive", "selected", "medical", "suggest", "participant", "protocols", "longterm", "combination", "accuracy", "units", "appropriate", "education", "registries", "design", "discharge", "method", "approach", "diagnostic", "cerebral", "statistical", "induction", "extraction", "harms", "technique", "physical", "individual", "doses", "strategy", "longer", "specific", "conditions", "oral", "positive", "procedure", "direct", "author", "satisfaction", "registry", "severity", "consumption", "syndrome", "illness", "active", "systems", "reports", "replacement", "therapeutic", "nursing", "countries", "temperature", "investigated", "world", "proportion", "original", "fluids", "event", "awareness", "cost", "planned", "agent", "diagnosis", "system", "limitations", "performance",

"treated", "development", "estimate", "state", "settings", "concealment", "domains",
"assessing", "models", "measure", "improvement", "protocol", "eligibility", "detection",
"treat", "nonpharmacological", "resuscitation", "transport", "discussion", "references",
"transfused", "previous", "allied", "social", "injection", "abstract", "searching", "functional",
"conventional", "analysed", "crossover", "experts", "maintenance", "occurrence", "designed",
"titles", "alternative", "removal", "evaluation", "inconsistency", "home", "sure", "platform",
"cells", "treatments", "medicine", "examine", "factors", "insertion", "ebSCO", "burns", "papers",
"dichotomous", "tool", "rescue", "comparator", "synthesis", "programmes",
"movement", "searched", "patients", "one", "two", "three", "four", "five", "six", "versus", "cochrane",
"RCTs", "high", "found", "embase", "modifiedbyjane", "inj", "isi", "emerg", "anaesth", "method",
"methods", "methodology", "approach", "study", "studies", "trial", "trials", "research", "data",
"results", "findings", "analysis", "analyses", "review", "reviews", "meta-analysis", "meta-
analyses", "systematic", "literature", "publication", "publications", "evidence", "evidences",
"participant", "participants", "subject", "subjects", "outcome", "outcomes", "effect", "effects",
"control", "controls", "controlled", "group", "groups", "sample", "samples", "sampling",
"population", "populations", "data", "dataset", "datasets", "variable", "variables", "measure",
"measures", "measurement", "measurements", "statistic", "statistics", "statistical", "analysis",
"analyses", "analyze", "examined", "examining", "assessment", "assessments", "evaluation",
"evaluations", "research", "studies", "study", "trial", "trials", "experiment", "experiments",
"survey", "surveys", "questionnaire", "questionnaires", "interview", "interviews", "observation",
"observations", "data", "results", "findings", "conclusion", "conclusions", "discussion",
"literature", "publications", "articles", "papers", "report", "reports", "review", "meta-analysis",
"systematic review", "evidence", "research", "study", "experiment", "trial", "survey",
"questionnaire", "interview", "observation", "data", "results", "findings", "analysis", "analyses",
"conclusion", "conclusions", "discussion", "literature", "publication", "article", "paper",
"report", "review", "evidence", "qualitative", "quantitative", "empirical", "theoretical",
"methodological", "analytical", "statistical", "experimental", "observational", "descriptive",
"comparative", "case study", "longitudinal", "cross-sectional", "correlational", "causal", "mixed
methods", "simulation", "modeling", "meta-analysis", "systematic review", "narrative review",

"literature review", "bibliometric analysis", "content analysis", "discourse analysis", "grounded theory", "phenomenology", "ethnography", "action research", "participatory research", "survey research", "experimental research", "quasi-experimental research", "correlational research", "descriptive research", "exploratory research", "explanatory research", "evaluative research", "comparative research", "case study research", "longitudinal research", "cross-sectional research", "mixed methods research", "qualitative research", "quantitative research", "empirical research", "theoretical research", "methodological research", "analytical research", "statistical research", "experimental research", "observational research", "descriptive research", "comparative research", "case study research", "longitudinal research", "cross-sectional research", "correlational research", "causal research", "mixed methods research", "simulation research", "modeling research", "meta-analysis research", "systematic review research", "narrative review research", "literature review research", "bibliometric analysis research", "content analysis research", "discourse analysis research", "grounded theory research", "phenomenology research", "ethnography research", "action research", "participatory research", "survey research", "experimental research", "quasi-experimental research", "correlational research", "descriptive research", "exploratory research", "explanatory research", "evaluative research", "comparative research", "case study research", "longitudinal research", "cross-sectional research", "mixed methods research", "ANAESTH", "pwe", "ppwe", "i²", "-", "- ", "also", "just", "very", "really", "quite", "study", "studies", "research", "data", "results", "analysis", "methods", "methodology", "review", "meta-analysis", "systematic review", "findings", "evidence", "ovid", "pubmed", "medline", "scopus", "web of science", "embase", "however", "therefore", "moreover", "furthermore", "nevertheless", "nonetheless", "and", "or", "but", "on", "in", "for", "with", "by", "as", "to", "median", "mode", "mean", "average", "standard deviation", "variance", "nonetheless", "nevertheless", "but", "yet", "on the other,"hand", "due", "different", "issue", "inclusion", "comparing", "additional", "including", "associated", "library", "databases", "pubmed", "medline", "cinahl", "scopus", "ovid", "ovidsp", "updated", "published", "conducted", "performed", "included", "general", "specific", "particular", "various", "certain", "different", "methodology", "approaches", "methods", "techniques", "strategies",

"therefore","however","moreover","furthermore","whether","using","following","number","reference","information","lists","overall","inj","isi"