Table 1: Summary of Journals in Analysis

Journal	First Publication	Number of Abstracts
Academic Emergency Medicine	1994	4452
American Journal of Emergency Medicine	1983	5587
Annals of Emergency Medicine	1980	5364
BMC Emergency Medicine	2001	496
Journal of Emergency Medicine	1983	3161
The Western Journal of Emergency Medicine	2007	1468

Table 2: Latent Dirichlet Allocation Topic Modeling Results

Topic	Name	Keywords	Abstracts	$\beta * 10^3$	R^2
1	Statistical Modeling and Prediction	score, ci, predict, risk, triage, model, rule, sensitivity, decision, criterion	464	3.57	0.85
2	Trauma Imaging	injury, fracture, trauma, chest, abdominal, radiographs, cervical_spine, radiography, blunt, radiograph	532	-5.35	0.81
3	Statistics: Measurement and Agreement	measure, measurement, agreement, estimate, assessment, correlation, kappa, assess, weight, accuracy	327	1.40	0.41
4	Case Presentation and Diagnosis	diagnosis, case, symptom, acute, disease, presentation, common, pain, review, treatment	879	-3.01	0.37
5	Chest Pain	chest, pain, acute, cardiac, ecg, myocardial_infarction, risk, troponin, acs, stemi	688	2.26	0.38
6	Clinical Trial	intervention, control, follow, trial, month, randomize, outcome, receive, day, primary	445	2.74	0.71
7	Trauma Severity and Outcomes	trauma, injury, center, score, head, level, severity, blunt, outcome, mortality	417	-1.18	0.60
8	Wound Care	wound, burn, laceration, skin, infection, eye, suture, day, foreign_body, anesthesia	403	-3.84	0.61
9	Toxicology	drug, exposure, case, overdose, poisoning, report, ingestion, poison, cocaine, toxicity	552	-1.63	0.70
10	Intubation and Airway Management	intubation, airway, attempt, success, technique, perform, intubate, endotracheal_intubation, device, difficult	518	-0.54	0.24
11	Literature Review and Publication	review, eps, medicine, article, report, ep, quality, publish, search, journal	260	1.25	0.47
12	Pediatrics	child, pediatric, age, young, month, infant, parent, ped, aged, adult	95	0.42	0.24
13	Laboratory Tests	level, serum, blood, concentration, sample, acute, laboratory, glucose, mg_dl, plasma	504	-1.10	0.21
14	Vitals	pressure, blood, arterial, mm_hg, change, oxygen, respiratory, increase, measurement, gas	499	-6.14	0.83
15	Temperature Management	degree, temperature, fluid, hypothermia, water, ml, body, cooling, air, heat	277	-3.82	0.80
16	Motor Vehicle Collision Related Injury	injury, related, victim, age, crash, death, case, driver, report, male	565	-0.53	0.04
17	Public Health and Disaster Medicine	cost, health, system, service, disaster, event, provide, public, facility, model	571	-2.71	0.65
18	Healthcare Utilization	visit, increase, ed, utilization, health, population, prescription, national, related, number	747	5.63	0.94
19	Cardiopulmonary Resuscitation	compression, cpr, chest, device, perform, minute, ventilation, technique, hand, standard	356	-2.17	0.35
20	Ultrasound	ultrasound, ci, appendicitis, diagnosis, diagnostic, perform, positive, test, pe, accuracy	637	4.33	0.89
21	Sedation	sedation, ketamine, receive, midazolam, adverse_event, propofol, procedure, minute, dose, procedural_sedation	387	1.52	0.52
22	Chart Review and Electronic Medical Records	error, medication, record, system, implementation, review, intervention, order, guideline, period	477	2.32	0.87

Table 2 – Continued from previous page

Topic	Name	Keywords	Abstracts	$\beta * 10^3$	R^2
23	CT Imaging	ct, head, image, ct_scan, compute_tomography, imaging, finding, undergo, contrast, mri	345	2.38	0.95
24	Risk Factor Anaylsis	ci, associate, factor, age, risk, confidence_interval, outcome, odd_ratio, association, adjust	315	8.25	0.95
25	IV Placement	ultrasound, placement, catheter, technique, procedure, access, guide, attempt, iv, perform	430	-1.11	0.13
26	Disposition	admission, discharge, day, admit, outcome, hospitalization, inpatient, hour, return, visit	498	3.76	0.94
27	Medical Education Assessment and Simulation	resident, student, training, medicine, score, skill, performance, simulation, assessment, test	638	1.60	0.66
28	Intracranial Hemorrhage and Stroke	stroke, bleeding, acute, ischemic_stroke, pregnancy, ectopic_pregnancy, risk, treatment, outcome, receive	267	1.76	0.90
29	Pain and Pain Treatment	pain, score, acute, receive, treatment, difference, minute, asthma, analgesic, opioid	800	2.44	0.21
30	Sepsis	mortality, sepsis, day, lactate, admission, outcome, shock, score, early, severe	430	4.18	0.71
31	Residency Training	program, medicine, residency, resident, survey, training, academic, report, practice, faculty	601	1.01	0.11
32	Operational Metrics	minute, hour, triage, increase, median, period, day, delay, length_stay, decrease	634	4.18	0.79
33	Academic Research	research, medicine, base, provide, develop, health, process, practice, identify, development	1198	2.73	0.42
34	Cardiac Arrest	cardiac_arrest, survival, resuscitation, cpr, outcome, discharge, defibrillation, cardiac, ventricular_fibrillation, arrest	554	-6.24	0.71
35	Survey Methodology	survey, report, provider, satisfaction, health, participant, respondent, experience, response, question	678	1.94	0.30
36	Prehospital Care	ems, transport, prehospital, service, paramedic, ambulance, system, call, response, scene	494	-4.74	0.76
37	Mental Health and Substance Abuse	alcohol, screen, test, hiv, screening, risk, psychiatric, testing, positive, prevalence	458	1.04	0.21
38	Lab Research and Basic Science	animal, minute, model, effect, epinephrine, rat, control, increase, hour, mg_kg	662	-11.23	0.89
39	Treatment	treatment, administration, dose, receive, hour, therapy, iv, intravenous, administer, oral	421	-5.22	0.71
40	Infection	antibiotic, infection, culture, positive, blood, treatment, pneumonia, influenza, test, bacteremia	505	-0.16	0.01

Table 3: Summary of Analysis by Research Themes

Topic Group	Topics	Percentage of Abstract Contribution	$\beta * 10^3$	R^2
Administration	26, 30, 32	12.77	19.77	0.94
Cards	5, 34	7.75	-5.81	0.73
EMS	36	3.97	-7.21	0.78
Infection	40	3.01	-0.08	0.00
Med Ed	27, 31	8.91	4.60	0.43
Mental Health	37	3.28	1.82	0.25
Pain	21, 29	7.44	6.64	0.34
Peds	12	2.27	0.79	0.33
Public Health	17, 18	9.85	5.14	0.81
Radiology	20, 23	7.21	10.95	0.98
Rescuscitation	10, 14, 15, 19, 25	14.64	-20.78	0.67
Stroke	28	2.02	2.89	0.90
Toxicology	9	3.67	-2.35	0.69
Trauma	2, 7, 8, 16	13.21	-16.39	0.91