

# Carlo Alberto Volta

## List of Publications by Year in descending order

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Version: 2024-02-01

128  
papers

6,408  
citations

101543

36  
h-index

71685

76  
g-index

135  
all docs

135  
docs citations

135  
times ranked

7665  
citing authors

#	ARTICLE	IF	CITATIONS
1	Noninvasive Ventilation of Patients with Acute Respiratory Distress Syndrome. Insights from the LUNG SAFE Study. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2017, 195, 67-77.	5.6	456
2	Fluid challenges in intensive care: the FENICE study. <i>Intensive Care Medicine</i> , 2015, 41, 1529-1537.	8.2	442
3	Global patient outcomes after elective surgery: prospective cohort study in 27 low-, middle- and high-income countries. <i>British Journal of Anaesthesia</i> , 2016, 117, 601-609.	3.4	400
4	Physiologic Effects of High-Flow Nasal Cannula in Acute Hypoxemic Respiratory Failure. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2017, 195, 1207-1215.	5.6	390
5	Effect of Helmet Noninvasive Ventilation vs High-Flow Nasal Oxygen on Days Free of Respiratory Support in Patients With COVID-19 and Moderate to Severe Hypoxemic Respiratory Failure. <i>JAMA - Journal of the American Medical Association</i> , 2021, 325, 1731.	7.4	295
6	Post-anaesthesia pulmonary complications after use of muscle relaxants (POPULAR): a multicentre, prospective observational study. <i>Lancet Respiratory Medicine</i> , 2019, 7, 129-140.	10.7	241
7	A prospective international observational prevalence study on prone positioning of ARDS patients: the APRONET (ARDS Prone Position Network) study. <i>Intensive Care Medicine</i> , 2018, 44, 22-37.	8.2	226
8	Impact of prolonged assisted ventilation on diaphragmatic efficiency: NAVA versus PSV. <i>Critical Care</i> , 2015, 20, 1.	5.8	208
9	Oxidative Stress and Endometriosis: A Systematic Review of the Literature. <i>Oxidative Medicine and Cellular Longevity</i> , 2017, 2017, 1-7.	4.0	190
10	Epidemiology, practice of ventilation and outcome for patients at increased risk of postoperative pulmonary complications. <i>European Journal of Anaesthesiology</i> , 2017, 34, 492-507.	1.7	189
11	Optimum support by high-flow nasal cannula in acute hypoxemic respiratory failure: effects of increasing flow rates. <i>Intensive Care Medicine</i> , 2017, 43, 1453-1463.	8.2	180
12	Biomarkers for Acute Respiratory Distress syndrome and prospects for personalised medicine. <i>Journal of Inflammation</i> , 2019, 16, 1.	3.4	180
13	Hospital mortality of adults admitted to Intensive Care Units in hospitals with and without Intermediate Care Units: a multicentre European cohort study. <i>Critical Care</i> , 2014, 18, 551.	5.8	154
14	Epidemiological characteristics, practice of ventilation, and clinical outcome in patients at risk of acute respiratory distress syndrome in intensive care units from 16 countries (PRoVENT): an international, multicentre, prospective study. <i>Lancet Respiratory Medicine</i> , 2016, 4, 882-893.	10.7	137
15	Critical care admission following elective surgery was not associated with survival benefit: prospective analysis of data from 27 countries. <i>Intensive Care Medicine</i> , 2017, 43, 971-979.	8.2	108
16	Pathophysiology of hypoxic-ischemic encephalopathy: a review of the past and a view on the future. <i>Acta Neurologica Belgica</i> , 2020, 120, 277-288.	1.1	98
17	Markers of endothelial and epithelial pulmonary injury in mechanically ventilated COVID-19 ICU patients. <i>Critical Care</i> , 2021, 25, 74.	5.8	94
18	Impact of flow and temperature on patient comfort during respiratory support by high-flow nasal cannula. <i>Critical Care</i> , 2018, 22, 120.	5.8	88

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19	Can diaphragmatic ultrasonography performed during the T-tube trial predict weaning failure? The role of diaphragmatic rapid shallow breathing index. <i>Critical Care</i> , 2016, 20, 305.	5.8	82
20	Variation of poorly ventilated lung units (silent spaces) measured by electrical impedance tomography to dynamically assess recruitment. <i>Critical Care</i> , 2018, 22, 26.	5.8	82
21	In vivo calibration of esophageal pressure in the mechanically ventilated patient makes measurements reliable. <i>Critical Care</i> , 2016, 20, 98.	5.8	80
22	Bedside assessment of the effects of positive end-expiratory pressure on lung inflation and recruitment by the helium dilution technique and electrical impedance tomography. <i>Intensive Care Medicine</i> , 2016, 42, 1576-1587.	8.2	78
23	Electrocardiographic features of 431 consecutive, critically ill COVID-19 patients: an insight into the mechanisms of cardiac involvement. <i>Europace</i> , 2020, 22, 1848-1854.	1.7	74
24	High-flow nasal cannula oxygen therapy decreases postextubation neuroventilatory drive and work of breathing in patients with chronic obstructive pulmonary disease. <i>Critical Care</i> , 2018, 22, 180.	5.8	72
25	Predictors of severe or lethal COVID-19, including Angiotensin Converting Enzyme inhibitors and Angiotensin II Receptor Blockers, in a sample of infected Italian citizens. <i>PLoS ONE</i> , 2020, 15, e0235248.	2.5	71
26	Factors influencing liberation from mechanical ventilation in coronavirus disease 2019: multicenter observational study in fifteen Italian ICUs. <i>Journal of Intensive Care</i> , 2020, 8, 80.	2.9	67
27	Emotional and interpersonal factors are most important for patient satisfaction with anaesthesia. <i>Acta Anaesthesiologica Scandinavica</i> , 2005, 49, 735-742.	1.6	65
28	Blood Interferon- $\gamma$ Levels and Severity, Outcomes, and Inflammatory Profiles in Hospitalized COVID-19 Patients. <i>Frontiers in Immunology</i> , 2021, 12, 648004.	4.8	60
29	Physiologic Evaluation of Ventilation Perfusion Mismatch and Respiratory Mechanics at Different Positive End-expiratory Pressure in Patients Undergoing Protective One-lung Ventilation. <i>Anesthesiology</i> , 2018, 128, 531-538.	2.5	55
30	Effect of positive end-expiratory pressure on pulmonary shunt and dynamic compliance during abdominal surgery. <i>British Journal of Anaesthesia</i> , 2016, 116, 855-861.	3.4	51
31	Predictors of weaning outcome in chronic obstructive pulmonary disease patients. <i>European Respiratory Journal</i> , 2000, 15, 656-662.	6.7	46
32	Health-related quality of life profiles, trajectories, persistent symptoms and pulmonary function one year after ICU discharge in invasively ventilated COVID-19 patients, a prospective follow-up study. <i>Respiratory Medicine</i> , 2021, 189, 106665.	2.9	46
33	Sustained oxygenation improvement after first prone positioning is associated with liberation from mechanical ventilation and mortality in critically ill COVID-19 patients: a cohort study. <i>Annals of Intensive Care</i> , 2021, 11, 63.	4.6	44
34	The Effect of Volatile Anesthetics on Respiratory System Resistance in Patients with Chronic Obstructive Pulmonary Disease. <i>Anesthesia and Analgesia</i> , 2005, 100, 348-353.	2.2	43
35	Simulation Training for Residents Focused on Mechanical Ventilation. <i>Simulation in Healthcare</i> , 2017, 12, 349-355.	1.2	43
36	LMA Supreme <sup>®</sup> vs iâ€gel <sup>®</sup> a comparison of insertion success in novices. <i>Anaesthesia</i> , 2012, 67, 384-388.	3.8	42

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37	Quality of life of COVID-19 critically ill survivors after ICU discharge: 90 days follow-up. <i>Quality of Life Research</i> , 2021, 30, 2805-2817.	3.1	42
38	Time course of endothelial dysfunction markers and mortality in COVID-19 patients: A pilot study. <i>Clinical and Translational Medicine</i> , 2021, 11, e283.	4.0	41
39	Protective intraoperative ventilation with higher versus lower levels of positive end-expiratory pressure in obese patients (PROBESE): study protocol for a randomized controlled trial. <i>Trials</i> , 2017, 18, 202.	1.6	40
40	Association between night-time surgery and occurrence of intraoperative adverse events and postoperative pulmonary complications. <i>British Journal of Anaesthesia</i> , 2019, 122, 361-369.	3.4	39
41	Electrical impedance tomography in perioperative medicine: careful respiratory monitoring for tailored interventions. <i>BMC Anesthesiology</i> , 2019, 19, 140.	1.8	38
42	Point of Care Ultrasound to Identify Diaphragmatic Dysfunction after Thoracic Surgery. <i>Anesthesiology</i> , 2019, 131, 266-278.	2.5	38
43	Co-Infections in Critically Ill Patients with or without COVID-19: A Comparison of Clinical Microbial Culture Findings. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 4358.	2.6	37
44	Influence of Different Strategies of Volume Replacement on the Activity of Matrix Metalloproteinases. <i>Anesthesiology</i> , 2007, 106, 85-91.	2.5	34
45	Fatigue in intensive care survivors one year after discharge. <i>Health and Quality of Life Outcomes</i> , 2016, 14, 148.	2.4	33
46	Interplay between Matrix Metalloproteinase-9, Matrix Metalloproteinase-2, and Interleukins in Multiple Sclerosis Patients. <i>Disease Markers</i> , 2016, 2016, 1-9.	1.3	31
47	Heterogeneity of regional inflection points from pressure-volume curves assessed by electrical impedance tomography. <i>Critical Care</i> , 2019, 23, 119.	5.8	31
48	High-flow oxygen therapy in tracheostomized patients at high risk of weaning failure. <i>Annals of Intensive Care</i> , 2019, 9, 4.	4.6	31
49	Over time relationship between platelet reactivity, myocardial injury and mortality in patients with SARS-CoV-2-associated respiratory failure. <i>Platelets</i> , 2021, 32, 560-567.	2.3	31
50	Personalized Positive End-Expiratory Pressure in Acute Respiratory Distress Syndrome: Comparison Between Optimal Distribution of Regional Ventilation and Positive Transpulmonary Pressure. <i>Critical Care Medicine</i> , 2020, 48, 1148-1156.	0.9	30
51	Effects of two different strategies of fluid administration on inflammatory mediators, plasma electrolytes and acid/base disorders in patients undergoing major abdominal surgery: a randomized double blind study. <i>Journal of Inflammation</i> , 2013, 10, 29.	3.4	27
52	Expiratory Flow Limitation as a Risk Factor for Pulmonary Complications After Major Abdominal Surgery. <i>Anesthesia and Analgesia</i> , 2017, 124, 524-530.	2.2	27
53	The effects of blood transfusion on red blood cell distribution width in critically ill patients: a pilot study. <i>Transfusion</i> , 2018, 58, 1863-1869.	1.6	27
54	Evaluation of a protocol for vancomycin administration in critically patients with and without kidney dysfunction. <i>BMC Anesthesiology</i> , 2015, 15, 95.	1.8	26

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55	Respiratory mechanics by least squares fitting in mechanically ventilated patients: application on flow-limited COPD patients. <i>Intensive Care Medicine</i> , 2002, 28, 48-52.	8.2	24
56	<i>Aeromonas sobria</i> necrotizing fasciitis and sepsis in an immunocompromised patient: a case report and review of the literature. <i>Journal of Medical Case Reports</i> , 2014, 8, 315.	0.8	24
57	An Open-Loop, Physiologic Model-Based Decision Support System Can Provide Appropriate Ventilator Settings. <i>Critical Care Medicine</i> , 2018, 46, e642-e648.	0.9	24
58	Expiratory flow limitation in intensive care: prevalence and risk factors. <i>Critical Care</i> , 2019, 23, 395.	5.8	24
59	TIMP-1 resistant matrix metalloproteinase-9 is the predominant serum active isoform associated with MRI activity in patients with multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2015, 21, 1121-1130.	3.0	23
60	The effect of an Enhanced Recovery Program in elective retroperitoneal abdominal aortic aneurysm repair. <i>Journal of Vascular Surgery</i> , 2016, 63, 888-894.	1.1	22
61	Matrix metalloproteinase-9 activity detected in body fluids is the result of two different enzyme forms. <i>Journal of Biochemistry</i> , 2012, 151, 493-499.	1.7	19
62	Using arterial-venous oxygen difference to guide red blood cell transfusion strategy. <i>Critical Care</i> , 2020, 24, 160.	5.8	19
63	Red Cell Distribution Width After Subarachnoid Hemorrhage. <i>Journal of Neurosurgical Anesthesiology</i> , 2018, 30, 319-327.	1.2	18
64	The effects of storage of red blood cells on the development of postoperative infections after noncardiac surgery. <i>Transfusion</i> , 2017, 57, 2727-2737.	1.6	17
65	Continuous assessment of neuro-ventilatory drive during 12h of pressure support ventilation in critically ill patients. <i>Critical Care</i> , 2020, 24, 652.	5.8	16
66	Gravitational distribution of regional opening and closing pressures, hysteresis and atelectrauma in ARDS evaluated by electrical impedance tomography. <i>Critical Care</i> , 2020, 24, 622.	5.8	16
67	Physiological effects of two driving pressure-based methods to set positive end-expiratory pressure during one lung ventilation. <i>Journal of Clinical Monitoring and Computing</i> , 2021, 35, 1149-1157.	1.6	16
68	Sigh in Patients With Acute Hypoxemic Respiratory Failure and ARDS. <i>Chest</i> , 2021, 159, 1426-1436.	0.8	16
69	Respiratory Drive in Patients with Sepsis and Septic Shock: Modulation by High-flow Nasal Cannula. <i>Anesthesiology</i> , 2021, 135, 1066-1075.	2.5	16
70	Pulmonary Function and Expiratory Flow Limitation in Acute Cervical Spinal Cord Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2012, 93, 1950-1956.	0.9	15
71	Routine practice in mechanical ventilation in cardiac surgery in Italy. <i>Journal of Thoracic Disease</i> , 2019, 11, 1571-1579.	1.4	15
72	Focus on renal blood flow in mechanically ventilated patients with SARS-CoV-2: a prospective pilot study. <i>Journal of Clinical Monitoring and Computing</i> , 2022, 36, 161-167.	1.6	15

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73	Respiratory function after aortic aneurysm repair: a comparison between retroperitoneal and transperitoneal approaches. <i>Intensive Care Medicine</i> , 2003, 29, 1258-1264.	8.2	14
74	Vaginal Lactoferrin Modulates PGE <sub>2</sub> , MMP-9, MMP-2, and TIMP-1 Amniotic Fluid Concentrations. <i>Mediators of Inflammation</i> , 2016, 2016, 1-7.	3.0	14
75	A Versatile Ultrasound Simulation System for Education and Training in High-Fidelity Emergency Scenarios. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2017, 5, 1-9.	3.7	14
76	Can pre-procedure neuroaxial ultrasound improve the identification of the potential epidural space when compared with anatomical landmarks? A prospective randomized study. <i>Minerva Anestesiologica</i> , 2017, 83, 41-49.	1.0	14
77	Individualized, perioperative, hemodynamic goal-directed therapy in major abdominal surgery (iPEGASUS trial): study protocol for a randomized controlled trial. <i>Trials</i> , 2018, 19, 273.	1.6	14
78	Impact of a colorectal enhanced recovery program implementation on clinical outcomes and institutional costs: A prospective cohort study with retrospective control. <i>International Journal of Surgery</i> , 2018, 53, 206-213.	2.7	13
79	An open-loop, physiological model based decision support system can reduce pressure support while acting to preserve respiratory muscle function. <i>Journal of Critical Care</i> , 2018, 48, 407-413.	2.2	13
80	Acute effects of hyperoxemia on dyspnoea and respiratory variables during pressure support ventilation. <i>Intensive Care Medicine</i> , 2006, 32, 223-229.	8.2	12
81	Spontaneous Breathing Patterns During Maximum Extracorporeal CO <sub>2</sub> Removal in Subjects With Early Severe ARDS. <i>Respiratory Care</i> , 2020, 65, 911-919.	1.6	12
82	The prognostic role of red blood cell distribution width in transfused and non-transfused critically ill patients. <i>Minerva Anestesiologica</i> , 2019, 85, 1159-1167.	1.0	11
83	An unusual case of acute respiratory failure in a patient with pulmonary veins stenosis late after catheter ablation of atrial fibrillation: a case report and the review of the literature. <i>BMC Pulmonary Medicine</i> , 2015, 15, 128.	2.0	10
84	Management of Intraoperative Mechanical Ventilation to Prevent Postoperative Complications after General Anesthesia: A Narrative Review. <i>Journal of Clinical Medicine</i> , 2021, 10, 2656.	2.4	9
85	The Underestimated Role of Platelets in Severe Infection a Narrative Review. <i>Cells</i> , 2022, 11, 424.	4.1	9
86	Clinical implications of microvascular CT scan signs in COVID-19 patients requiring invasive mechanical ventilation. <i>Radiologia Medica</i> , 2022, 127, 162-173.	7.7	9
87	A methodological approach for determination of maximal inspiratory pressure in patients undergoing invasive mechanical ventilation. <i>Minerva Anestesiologica</i> , 2015, 81, 33-8.	1.0	9
88	Capsaicin patch for persistent postoperative pain after thoracoscopic surgery, report of two cases. <i>Journal of Visualized Surgery</i> , 2018, 4, 51-51.	0.2	7
89	Impaired platelet reactivity in patients with septic shock: a proof-of-concept study. <i>Platelets</i> , 2020, 31, 652-660.	2.3	7
90	Platelet morphological indices on Intensive Care Unit admission predict mortality in septic but not in non-septic patients. <i>Minerva Anestesiologica</i> , 2021, 87, 184-192.	1.0	7

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91	Responsiveness to intravenous administration of salbutamol in chronic obstructive pulmonary disease patients with acute respiratory failure. <i>Intensive Care Medicine</i> , 2001, 27, 1949-1953.	8.2	6
92	Serum Gelatinases Levels in Multiple Sclerosis Patients during 21 Months of Natalizumab Therapy. <i>Disease Markers</i> , 2016, 2016, 1-7.	1.3	6
93	Respiratory mechanics during and after anaesthesia for major vascular surgery. <i>Anaesthesia</i> , 1999, 54, 1041-1047.	3.8	5
94	Lower airways inflammation in patients with ARDS measured using endotracheal aspirates: a pilot study. <i>BMJ Open Respiratory Research</i> , 2017, 4, e000222.	3.0	5
95	Typical patterns of expiratory flow and carbon dioxide in mechanically ventilated patients with spontaneous breathing. <i>Journal of Clinical Monitoring and Computing</i> , 2017, 31, 773-781.	1.6	5
96	Hydroxyethyl Starch 130/0.4 Binds to Neutrophils Impairing Their Chemotaxis through a Mac-1 Dependent Interaction. <i>International Journal of Molecular Sciences</i> , 2019, 20, 817.	4.1	5
97	Fast skeletal troponin I, but not the slow isoform, is increased in patients under statin therapy: a pilot study. <i>Biochemia Medica</i> , 2019, 29, 68-76.	2.7	5
98	Positive end-expiratory pressure (PEEP) level to prevent expiratory flow limitation during cardiac surgery: study protocol for a randomized clinical trial (EFLcore study). <i>Trials</i> , 2018, 19, 654.	1.6	4
99	Fatigue of ICU Survivors, No Longer to Be Neglected. <i>Chest</i> , 2020, 158, 848-849.	0.8	4
100	Associations Between Expiratory Flow Limitation and Postoperative Pulmonary Complications in Patients Undergoing Cardiac Surgery. <i>Journal of Cardiothoracic and Vascular Anesthesia</i> , 2022, 36, 815-824.	1.3	4
101	Calculation of Transpulmonary Pressure From Regional Ventilation Displayed by Electrical Impedance Tomography in Acute Respiratory Distress Syndrome. <i>Frontiers in Physiology</i> , 2021, 12, 693736.	2.8	4
102	Phenotypic heterogeneity of COVID-19 pneumonia: clinical and pathophysiological relevance of the vascular phenotype. <i>ESC Heart Failure</i> , 2022, 9, 263-269.	3.1	3
103	Acute Respiratory Failure Onset in a Patient With Guillain-Barré Syndrome After Legionella-Associated Pneumonia. <i>Journal of Clinical Neuromuscular Disease</i> , 2014, 16, 74-78.	0.7	2
104	Balanced and unbalanced solutions modulate the release of Matrix Metalloproteinase-9 (MMP-9) from neutrophils in response to inflammatory stimuli: an in vitro study. <i>Inflammation Research</i> , 2014, 63, 325-328.	4.0	2
105	Can Abdominal Muscle Ultrasonography During Spontaneous Breathing and Cough Predict Reintubation in Mechanically Ventilated Patients?. <i>Chest</i> , 2021, 160, 1163-1164.	0.8	2
106	Circulating Skeletal Troponin During Weaning From Mechanical Ventilation and Their Association to Diaphragmatic Function: A Pilot Study. <i>Frontiers in Medicine</i> , 2021, 8, 770408.	2.6	2
107	Weaning from mechanical ventilation. <i>Current Anaesthesia and Critical Care</i> , 2006, 17, 321-327.	0.3	1
108	Successful nasal intubation with a laryngeal nerve monitoring tube using bronchoscopy in a patient with plunging goiter: a case report. <i>BMC Research Notes</i> , 2013, 6, 467.	1.4	1



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109	The impact of an Enhanced Recovery After Surgery (ERAS) program in elective retroperitoneal abdominal aortic aneurism repair. Journal of the American College of Surgeons, 2014, 219, e58.	0.5	1
110	Impact of an ERAS programme on clinical outcomes and institutional costs in elective laparoscopic and open colorectal resections. Clinical Nutrition ESPEN, 2016, 12, e47-e48.	1.2	1
111	A Physiological Point of View on Expiratory (Re)action during Mechanical Ventilation. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 1170-1172.	5.6	1
112	Albumin replacement therapy in immunocompromised patients with sepsis " Secondary analysis of the ALBIOS trial. Journal of Critical Care, 2021, 63, 83-91.	2.2	1
113	Prognostic factors in older patients admitted in ICU with diagnosis of abdominal sepsis (sepsis-3) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.5	1
114	Body Fluid Management in Abdominal Surgery Patients. , 2013, , 93-103.		0
115	Impact of an Enhanced Recovery after Surgery (ERAS) program on clinical outcomes and institutional costs in elective laparoscopic and open colorectal resections. Journal of the American College of Surgeons, 2015, 221, e61.	0.5	0
116	Enhanced Recovery Program in Laparoscopic Colorectal Surgery: An Observational Controlled Trial. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2021, 31, 363-370.	1.0	0
117	Anaesthesia and Emergency Laparoscopy. , 2016, , 185-201.		0
118	Diaphragmatic ultrasonography during spontaneous breathing trials in critically ill patients: Can it identify weaning failure?. , 2016, , .		0
119	Sustained Oxygenation Improvement After First Prone Positioning Is Associated with Liberation from Mechanical Ventilation and Survival in Critically Ill COVID-19 Patients: A Cohort Study. SSRN Electronic Journal, 0, , .	0.4	0
120	Transparent decision support for mechanical ventilation using visualization of clinical preferences. BioMedical Engineering OnLine, 2022, 21, 5.	2.7	0
121	Title is missing!. , 2020, 15, e0235248.		0
122	Title is missing!. , 2020, 15, e0235248.		0
123	Title is missing!. , 2020, 15, e0235248.		0
124	Title is missing!. , 2020, 15, e0235248.		0
125	Title is missing!. , 2020, 15, e0235248.		0
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127	Title is missing!. , 2020, 15, e0235248.		0
128	Title is missing!. , 2020, 15, e0235248.		0