

<p>Organ support therapy in the intensive care unit and return to work: a nationwide, register-based cohort study Riddersholm, S., Christensen, S., Kragholm, K. et al. <i>Intensive Care Med</i> (2018) 44: 418. https://doi.org/10.1007/s00134-018-5157-1</p>	<p>Among 5762 ICU survivors, 68% returned to work within 2 years after hospital discharge. Disability and sickness benefits constituted 89% of social benefits among patients not returning to work and 59% among patients withdrawing from work following an initial return to work. <i>The majority of a nationwide cohort of ICU survivors returned to work. Sick leave and receipt of disability pension were common following ICU admission. Mechanical ventilation and longer ICU LOS were associated with reduced chances of return to work.</i></p>
<p>Oxygen management in mechanically ventilated patients: A multicentre prospective observational study Egi, Moritoki et al. <i>Journal of Critical Care</i>, Volume 46, 1 - 5</p>	<p>This is multicentre prospective study to observe the oxygen management in ventilated patients. Hyperoxemia was common as PaO2 was ≥ 100 mmHg during 47.2% of the study period. Hyperoxemia was not corrected as FIO2 was less likely decreased when FIO2 was < 0.5</p>
<p>Why all randomised controlled trials produce biased results. Krauss A. <i>Ann Med</i>. 2018 Jun;50(4):312-322. doi: 10.1080/07853890.2018.1453233. Epub 2018 Apr 4.</p>	<p>This study shows that these world-leading RCTs that have influenced policy produce biased results by illustrating that participants' background traits that affect outcomes are often poorly distributed between trial groups, that the trials often neglect alternative factors contributing to their main reported outcome and, among many other issues, that the trials are often only partially blinded or unblinded. The study here also identifies a number of novel and important assumptions, biases and limitations not yet thoroughly discussed in existing studies that arise when designing, implementing and analysing trials.</p>
<p>Corticosteroids for septic shock: what to do now? Marik. <i>JECM</i>, 10.21037/jecm.2018.03.08</p>	<p>Although hydrocortisone positively impacts the course of septic shock this drug appears to reduce mortality only in the sickest sub-group of patients. However, we propose that when combined with intravenous vitamin C and thiamine, hydrocortisone improves outcome in all septic patients. We therefore believe that the era of corticosteroid monotherapy to treat sepsis has ended. Furthermore, we suggest that hydrocortisone be administered by bolus dosing rather than as a continuous infusion.</p>
<p>Promising novel therapy with hydrogen gas for emergency and critical care medicine Sano et al. https://doi.org/10.1002/ams2.320</p> <p><i>It has been reported that hydrogen gas exerts a therapeutic effect in a wide range of disease conditions, from acute illness such as ischemia-reperfusion injury, shock, and damage healing to chronic illness such as metabolic syndrome, rheumatoid arthritis, and neurodegenerative diseases.</i></p>	<p>Antioxidant and anti-inflammatory properties of hydrogen gas have been proposed, but the molecular target of hydrogen gas has not been identified. We established the Center for Molecular Hydrogen Medicine to promote non-clinical and clinical research on the medical use of hydrogen gas through industry-university collaboration and to obtain regulatory approval of hydrogen gas and hydrogen medical devices (http://www.karc.keio.ac.jp/center/center-55.html). Studies undertaken by the Center have suggested possible therapeutic effects of hydrogen gas in relation to various aspects of emergency and critical care medicine, including acute myocardial infarction, cardiopulmonary arrest syndrome, contrast-induced acute kidney injury, and haemorrhagic shock.</p>
<p>Efficacy of early passive tilting in minimizing ICU-acquired weakness: A randomized controlled trial Sarfati et al. https://doi.org/10.1016/j.jcrr.2018.03.031</p>	<p>Tilting intensive care unit patients has been advocated to minimize acute weakness Passive tilting plus early physiotherapy was compared to physiotherapy alone Tilting added to early physiotherapy affords a faster recovery of muscle weakness</p>

<p>Incidence and Outcomes for Patients With Cirrhosis Admitted to the United Kingdom Critical Care Units McPhail et al. <i>Critical Care Medicine</i>. 46(5):705-712, MAY 2018</p>	<p>More patients with cirrhosis are being admitted to critical care units but with increasing survival rates. Patients with alcohol-related liver disease have reduced survival rates partly explained by higher levels of organ failure at admission. Patients with cirrhosis and organ failure warrant a trial of organ support and universal prognostic pessimism is not justified.</p>
<p>Efficacy and Safety of Procalcitonin Guidance in Patients With Suspected or Confirmed Sepsis: A Systematic Review and Meta-Analysis Iankova et al. <i>Critical Care Medicine</i>. 46(5):691-698, MAY 2018</p>	<p>In adult patients with suspected or confirmed sepsis, procalcitonin guidance reduces antibiotics duration with no observed adverse effects on patient outcomes.</p>
<p>Association between intra- and post-arrest hyperoxia on mortality in adults with cardiac arrest: A systematic review and meta-analysis Patel et al. https://doi.org/10.1016/j.resuscitation.2018.04.008</p>	<p>We included 16 observational studies with a total of 40,573 adult patients. Six studies included patients only with out-of-hospital CA (OHCA), 2 studies included patients only with in-hospital CA (IHCA), and 8 studies included patients with both OHCA and IHCA. Two studies assessed intra-arrest hyperoxia while 14 studies examined post-arrest hyperoxia. Of the 10 studies included for quantitative analysis, intra-arrest hyperoxia was associated with a significantly lower mortality rate [odds ratio (OR) 0.25, 95% confidence interval (CI) 0.12-0.53, $p < 0.001$] while post-arrest hyperoxia was associated with higher mortality (OR 1.34, 95%CI 1.08-1.67, $p = 0.008$). In adults with CA, intra-arrest hyperoxia is associated with lower mortality while post-arrest hyperoxia is associated with higher mortality.</p>
<p>Early Goal-Directed Therapy in Severe Sepsis and Septic Shock: A Meta-Analysis and Trial Sequential Analysis of Randomized Controlled Trials Lu et al. <i>JICM</i>. Vol 33, Issue 5, 2018</p>	<p>Adults with severe sepsis and septic shock who received EGDT had a lower mortality than those given usual care, the benefit may mainly be attributed to treatments administered within the first 6 hours. However, the underlying mechanisms by which lactate clearance-guided therapy benefits these patients are yet to be investigated.</p>
<p>Mortality and morbidity in acutely ill adults treated with liberal versus conservative oxygen therapy (IOTA): a systematic review and meta-analysis Chu et al. <i>Lancet</i>. https://doi.org/10.1016/S0140-6736(18)30479-3</p>	<p>In acutely ill adults, high-quality evidence shows that liberal oxygen therapy increases mortality without improving other patient-important outcomes. Supplemental oxygen might become unfavourable above an SpO2 range of 94-96%. These results support the conservative administration of oxygen therapy.</p>