2019 - ICU TOP TRIALS SO FAR...

TITILE | AUTHOR | WHY | OUTCOME
--- | --- | --- | ---
Emtral versus intravenous approach for the sedation of critically ill patients: a randomized and controlled trial (SedatDN trial). Critical Care 2019 23:3 | Mussitraletti | Enteral administration of sedative drugs might avoid severe sedation, and would be as effective as intravenous administration in patients who are awake, with fewer side effects and lower costs. No large randomized study has assessed its relevance in non-severe hypoxic patients. In a randomized controlled trial (PROTREACH study), we aimed to evaluate propofolization with HPNC vs. standard bag-valve-mask oxygenation (BVM) in non-severe hypoxic patients during rapid sequence intubation (RSI) in the ICU. | There were 349 patients enrolled. There were no differences in the primary outcome. A total of 192 patients were randomized. Compared with BVM, propofolization with HPNC in the ICU did not improve the lowest HR/TV during intubation in the non-severe hypoxic patients but did not to a reduction in intubation-related adverse events.

Neosal high-flow oxygenation for endotracheal intubation in the critically ill patient: a randomized clinical trial. Intensive Care Med (2019) 45: 447. | Quittion | Non-invasive ventilation versus high-flow nasal cannula oxygen therapy with severe acute respiratory failure before intubation of patients with acute hypoxemic respiratory failure: a randomised, multicentre, open-label trial. LANCET. Resp Medicine. vol 7, Issue 4, p328-335. April 2019. | Non-invasive ventilation has never been compared with high-flow oxygen to determine whether it reduces the risk of severe hypoxemia during intubation. One thousand four hundred and fifty-four subjects were randomized. 900 were included. Sustained ROSC was significantly improved in the DPA group (60% vs 42%, P < 0.001) as was survival to ICU discharge (59.5% vs. 33%) and survival to hospital discharge (49.5% vs. 26.9%, P < 0.001). Outcomes were not affected by intra-group comparisons based on intubation status. ROSC, survival to ICU and hospital discharge were noted to be improved in inter-group comparisons of non-intubated patients, but not intubated ones. This single-center, randomized, double-blind, placebo-controlled clinical trial was conducted at Siriraj Hospital, Bangkok, Thailand, and enrolled 214 adult patients with hypoxemia. Hyperoxemia was significantly more common in the high-flow oxygen group. 

Real-time compression feedback for patients with in-hospital cardiac arrest at a multi-center randomized controlled trial | Goorahani | To determine if real-time compression feedback using a non-automated hand-held device improves patient outcomes from inhospital cardiac arrests (IHCA). | This study reports an association between the duration of TTM and cognitive outcome. In OHCA survivors with perceived good cognitive outcome (uSFC 2.0, TTM) was associated with reduced memory retrieval deficits and lower relative risk of cognitive impairment six months after OHCA compared to standard TTM.

Early Use of Norepinephrine in Septic Shock Resuscitation (CENSE); A Randomized Trial, ARCCOM Vol 199, No 5 | 9 May 2019 | Recent retrospective evidence suggests the efficacy of early norepinephrine administration during resuscitation.

Early Prolonged targeted temperature management reduces memory retrieval deficits six months post-cardiac arrest. RCT, RESUS Jan 2019 Vol 132 P1-8 | Fiuveld | Cognitive sequelae: most frequently memory attention, and executive dysfunctions, occur commonly in out-of-hospital cardiac arrest (OHCA) survivors. Targeted temperature management (TTM) following OHCA is associated with improved cognitive function. However, the relationship between the duration of TTM and cognitive outcome remains uncertain. | Cognitive sequelae are common after severe hypoxic-ischemic brain injury, occur commonly in out-of-hospital cardiac arrest (OHCA) survivors. Targeted temperature management (TTM) following OHCA is associated with improved cognitive function. However, the relationship between the duration of TTM and cognitive outcome remains uncertain. This study reports an association between the duration of TTM and cognitive outcome. In OHCA survivors with perceived good cognitive outcome (uSFC 2.0, TTM) was associated with reduced memory retrieval deficits and lower relative risk of cognitive impairment six months after OHCA compared to standard TTM.

Early Manipulation of Arterial Blood Pressure in Acute Ischemic Stroke (EFAST). Neurocritical Care 2019 April, Vol 38, Issue 2 p272-279 | Razi | Early goal-directed haemodynamic optimization of cerebral oxygenation in cemotose survivors after cardiac arrest: the Neureproet post-cardiac arrest trial. European Heart Journal, Volume 40, Issue 22, 7 June 2019, Pages 1618-1614. | During the first 6–12 h of intensive care unit (ICU), post-cardiac arrest (CA) patients treated with a mean arterial pressure (MAP) > 65 mm Hg target experience a drop of the cerebral oxygenation that may cause additional cerebral damage. | MAP was targeted to >65 mm Hg in the MAP group and <65 mm Hg in the control group. Targeting a higher MAP led to a reduction in adverse events, including intracranial hemorrhage, non-cerebral organ dysfunction, and death. No survival benefit was observed from this trial to programme to implement a care pathway for patients undergoing emergency abdominal surgery. Future QI programmes should ensure that learn’s both the time and resources necessary to intervene early. 877 randomised patients. Among patients with out-of-hospital cardiac arrest, intra-nasal evaporative intra-arrest cooling compared with usual care did not result in a statistically significant improvement in survival with good neurological outcome at 90 days.

Effectiveness of a national quality improvement programme to improve survival after emergency abdominal surgery (EPOCH) - a stepped wedge randomised trial. | Peden | Emergency abdominal surgery is associated with poor patient outcomes. We studied the effectiveness of a national quality improvement (QI) programme to implement a care pathway to improve survival for these patients. Our stepped wedge cluster randomised trial of patients aged 45 years or older undergoing emergency open major abdominal surgery. 22.745 patients were assessed for eligibility. Of 18,975 eligible patients from 114 NHS hospitals, primary outcome data were analysed for 842 participants in the usual care group and 7374 in the QI group. | The use of endotracheal tube fasceter to secure the endotracheal tube reduces the rate of a composite outcome which included: unexpected, facial skin tears, or endotracheal tube dislodgement compared to adhesive tape. No mortality benefit observed in this trial programme to implement a care pathway for patients undergoing emergency abdominal surgery. Future QI programmes should ensure that learn’s both the time and resources necessary to intervene early. 877 randomised patients. Among patients with out-of-hospital cardiac arrest, intra-nasal evaporative intra-arrest cooling compared with usual care did not result in a statistically significant improvement in survival with good neurological outcome at 90 days.

Effect of Nasal Non Invasive Evaporative Intra-arrest Cooling on Functional Neurological Outcomes in Out-of-Hospital Cardiac Arrest. PRINCESS, JAMA. 2019;322(11):1044-1052. | Nordberg | Does cooling of the brain initiated during cardiopulmonary resuscitation improve survival with good neurologic outcome in patients with out-of-hospital cardiac arrest | Withdrawal of PEEP before emergency intubation does not reduce intubation related complications. Supposing using 100% oxygen during awakening, postintubation agitation is small and does not affect oxygenation, possibly condition on an open lung during anesthesia, as achieved for intraoperative PEEP. 113 patients.

The effect of adhesive tape versus endotracheal tube fasceter to secure the endotracheal tube reduces the rate of a composite outcome which included: unexpected, facial skin tears, or endotracheal tube dislodgement compared to adhesive tape. No mortality benefit observed in this trial programme to implement a care pathway for patients undergoing emergency abdominal surgery. Future QI programmes should ensure that learn’s both the time and resources necessary to intervene early. 877 randomised patients. Among patients with out-of-hospital cardiac arrest, intra-nasal evaporative intra-arrest cooling compared with usual care did not result in a statistically significant improvement in survival with good neurological outcome at 90 days.

Positive End-expiratory Pressure and Postoperative Atelectasis: A Randomized Controlled Trial. Anesthesiology, 131(4):819-85, OCTOBER 2019 | Goetz | Tricky patients undergoing laparoscopic surgery under general anesthesia were randomized to maintained (7 or 9 cm H2O) or care PEEP before being Allen 100% oxygen for emergence preoxygenation. Postoperative asesests (assessed by computed tomography) was small with no effect on oxygenation, whether or not PEEP was used during emergence. | Effective of an ICU Diary on Posttraumatic Stress Disorder Symptoms Among Patients Receiving Mechanical Ventilation. JAMA. 2019;322(22):229-229. doi: 10.1001/jama.2019.0498 | FLAMAKT | What is the effect of an intensive care unit (ICU) diary, filled by family members and ICU clinicians, on patient PTSD and stress disorder symptoms among patients receiving mechanical ventilation? 165 PATIENTS. | These findings do not support the use of ICU diaries for preventing posttraumatic stress disorder symptoms after ICU admission.


www.propofology.com