**NLS 5504 Data Table**

**Table 1: *Chest compression to ventilation ratio***

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| **Author** | **Model** | **Study design** | **Objective** | **Main Results** |
| **Compression: Ventilation (C:V) ratio** |
| Srikantan *et al* {Srikantan 2005 293} | Manikin | Randomized | 3:1 vs. 5:1 vs. 10:2 vs. 15:2 C:V | No differences in rescuers fatigue; 3:1 C:V rated more difficult  |
| Hemway *et al* {Hemway 2013 F42} | Manikin | Randomized | 3:1 vs. 5:1 vs. 15: 2 C:V | 3:1 CV had more consistent CC depth and Rescuers preferred |
| Dannevig *et al*{Dannevig 2013 163} | Piglet  | Randomized | 3:1 vs. 9:3 vs. 15:2 C:V | No differences in time to ROSC and brain inflammation  |
| Pasquin *et al*{Pasquin 2018 37} | Piglet  | Randomized | 3:1 vs. 2:1 vs. 4:1 C:V | No differences in time to ROSC and survival |
| Solevåg *et al*{Solevåg 2010 1571} | Piglet  | Randomized | 3:1 vs. 9:3 C:V | No differences in time to ROSC and survival |
| Dannevig *et al*{Dannevig 2012 89} | Piglet  | Randomized | 3:1 vs. 9:3 C:V | No differences in lung tissue injury marker  |
| Solevåg *et al*{Solevåg 2011 F 417} | Piglet | Randomized | 3:1 vs. 15:2 C:V | No differences in time to ROSC and survival |
| **Continuous chest compressions with asynchronized ventilation (CCaV)** |
| Solevåg *et al*{Solevåg 2012 73} | Manikin | Randomized | 3:1 vs. 9:3 vs. 15:2 vs. CCaV | CCaV had higher minute ventilation and lower tidal volume |
| Li *et al*{Li 2015 142} | Manikin | Randomized | 3:1 vs. CCaV (90) vs. CCaV (120/min) | More fatigue and decreased CC depth with CCaV(120/min) |
| Boldingh *et al*{Boldingh 2015 1} | Manikin | Randomized | 3:1 vs. CCaV (120/min) | More fatigue and faster decreased CC depth with CCaV |
| Boldingh *et al*{Boldingh 2016 910} | Manikin | Randomized | 3:1 vs. 9:3 vs. 15:2 vs. CCaV | CC rate, ventilation rate, and minute ventilation was higher in CCaV; CC depth decreased more with CCaV |
| Dellimore *et al*{Dellimore 2016 1} | Manikin | Randomized | 3:1 vs. CCaV + TT or TF  | No differences in CC depth; TF with 3:1 C:V lower CC force |
| Schmölzer *et al*{ Schmölzer 2014 270} | Piglet  | Randomized | 3:1 C:V vs. CCaV | No differences in time to ROSC and survival |
| Patel *et al*{Patel 2020 357} | Piglet  | Randomized | CCaV 90 vs. 100 vs. 120/min | No differences in time to ROSC and survival |
| Mendler *et al*{Mendler 2015 73} | Piglet  | Randomized | 3:1 (with T-piece or self-inflating bag) vs. CCaV (with ventilator) | Trend to higher SaO2 and PaO2 in CCaV ventilator group |
| Mendler *et al*{Mendler 2015 22} | Piglet  | Randomized | 3:1 (with T-piece or self-inflating bag) vs. CCaV (with ventilator) | No differences in time to ROSC and survival |
| Aggelina *et al*{Aggelina 2021 60} | Piglet  | Randomized | 3:1 C:V vs. CCaV | CCaV with improved coronary perfusion pressure, ETCO2, time to ROSC, and survival |
| Vali *et al*{Vali 2021 752} | Lamb | Randomized | 3:1 C:V vs. CCaV | CCaV with higher partial oxygen tension, greater left carotid blood flow, and oxygen delivery |
| **Continuous chest compressions with sustained inflations (CC+SI)** |
| Schmölzer *et al*{ Schmölzer 2013 2495} | Piglet | Randomized | 3:1 C:V vs. CC+SI (120/min)  | Faster time to ROSC and survival with CC+SI  |
| Li *et al*{Li 2017 337} | Piglet | Randomized | 3:1 C:V vs. CC+SI (90/min) | Faster time to ROSC with CC+SI; similar survival  |
| Mustofa *et al*{Mustofa 2018 82} | Piglet | Randomized | 3:1 C:V vs. CC+SI (90/min,60 vs.20sec) | Faster time to ROSC with CC+SI; No different in survival |
| Vali *et al*{Vali 2017 e370} | Lamb | Randomized | 3:1 C:V vs. CC+SI (120/min) | No different in time to ROSC and survival  |
| Schmölzer *et al*{Schmölzer 2018 F455} | Newborns | Randomized | 3:1 C:V vs. CC+SI (90/min) | Faster time to ROSC with CC+SI  |

CPR=cardiopulmonary resuscitation, CC=chest compression, ROSC=return of spontaneous circulation, C:V=Compression: Ventilation ratio, CCaV= continuous chest compressions with asynchronized ventilation, CC+SI=continuous chest compressions with sustained inflations, sec=seconds