

Welcome to the dataset for the study “Using an audiovisual feedback device improves cardiopulmonary resuscitation performance during day and night – a randomized controlled simulation study”. This repository contains the data set and syntax for the primary and secondary endpoints. Below you can find the names of the files and a short explanation of the content. All data were gathered in an anonymous form in IBM SPSS (version 29). The “syntax”-files contain the calculations for the primary and secondary endpoints. Together with our data file, the syntax can be used to reproduce our calculations.

1. “data_set”
This file contains the data set that was used to perform statistical analysis.
2. “primary_endpoint”
This file contains the syntax of the primary endpoint: mean compression depth with and without feedback at night t_1 (30 to 90s) and t_2 (480 to 540s).
3. “adequate_compression_depth”
This file contains the syntax of the secondary endpoint “adequate compression depth”: number and percentage of chest compressions with adequate compression depth, at day and night and though all three cycles of the simulation.
4. “compression_frequency”
This file contains the syntax of the secondary endpoint “compression frequency”: chest compression frequency at day and night and though all three cycles of the simulation.
5. “correct_chest_recoil”
This file contains the syntax of the secondary endpoint “correct chest recoil”: the number and percentage of chest compressions with correct chest recoil, at day and night and though all three cycles of the simulation.
6. “correct_hand_position”
This file contains the syntax of the secondary endpoint “correct hand position”: the number and percentage of chest compressions with correct hand position, at day and night and though all three cycles of the simulation.
7. “effective_compressions”
This file contains the syntax of the secondary endpoint “effective compressions”.
“Effective compressions” are defined as chest compressions that meet all three criteria: correct compression depth, correct hand position, and complete chest recoil of the thorax. It includes number and percentage of effective compressions at day and night and though all three cycles of the simulation.
8. “mean_compression_depth”
This file contains the syntax of the secondary endpoint “mean compression depth”: the mean compression depth in mm of chest compressions, at day and night and though all three cycles of the simulation.
9. “mean_compression_depth_BMI”
This file contains the syntax of the secondary endpoint “mean compression depth”: the mean compression depth in mm and including the grouping factor “median BMI”, at day and night and though all three cycle of the simulation.
10. “no_flow_time”
This file contains the syntax of the secondary endpoint “no-flow-time”. “No-flow time” is defined as cumulative time when chest compressions were absent, starting after 2 seconds of interruption or if a compression depth of < 20mm was performed for more than 2 seconds,
11. “non_sufficient_compression_depth”

This file contains the syntax of the secondary endpoint “non-sufficient compression depth”: number and percentage of chest compressions with non-sufficient compression depth, at day and night and though all three cycle of the simulation

12. “regression_analysis”

This file contains the syntax of the linear and multiple regression analysis of the participants characteristics that were collected through the participants questionnaire.

13. “too_deep_compressions”

This file contains the syntax of the secondary endpoint “too deep compression depth”: number and percentage of chest compressions with too deep compression depth, at day and night and though all three cycle of the simulation

To cite this dataset, please use the following citation:

Preuss M, Röhrig R, Hübel C, Vos C, Unterkofler J, Willmes K, Brokmann JC, Plata C. Dataset to: “[Using an audiovisual feedback device improves cardiopulmonary resuscitation performance during day and night – a randomized controlled simulation study]”. 10.18154/ RWTH-2024-08349

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