**Supplemental Digital Content 2**

**Blood pressure and end-tidal carbon dioxide ranges during aneurysm occlusion and neurological outcome after an aneurysmal subarachnoid hemorrhage**

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|  | Artifact criteria1,2 |
| General criteria | * User entered values: invalid. * Two measurements had to be below the threshold, before it was classified as an episode. Within one episode, one measurement was allowed to reach the threshold without ending it, when the next measurement was again below the threshold. * Intraoperative data collection started ten minutes after incision (or 20 minutes after induction end when not available) and stopped ten minutes prior to procedure end (or 20 minutes prior to anesthesia end when not available). |
| Blood pressure | * At least 20 MAP valid measurements (not consecutive) * Exclusion if no recorded MAP > 10 minutes uninterrupted * SBP had to be between 50 and 250 mmHg * DBP had to be between 20 and 200 mmHg * MAP had to be between 50 and 150 mmHg * MAP had to be between SBP and DBP * Pulse pressure was higher than 20 + (DBP/90)\*10 * Pulse pressure was higher than 10 + (MAP/150)\*10 * Non-invasive blood pressure was used unless an arterial blood pressure was measured at the same time or within 6 minutes before or after the non-invasive blood pressure measurement. |
| ETCO2 | * At least 20 valid ETCO2 measurements (not consecutive) * Exclusion if no recorded ETCO2 > 10 minutes uninterrupted * ETCO2 had to be between 10 and 65 mmHg * Invalid when abrupt changes in ETCO2 values were seen, defined as ≥ 5mmHg change in either direction with a consecutive value changing back with at least 5 mmHg. |
| RMV | * Tidal volume had to be between 100 ml and 1000ml * Respiratory rate had to be between 4 and 25/minute * RMV had to be between 500 and 25000 ml/min |

**Table 1. Artifact filter**

*ETCO2: end-tidal carbon dioxide. MAP: mean arterial blood pressure. SBP: systolic blood pressure. DBP:*

*diastolic blood pressure. RMV: respiratory minute volume (calculated measure: tidal volume \* respiratory rate)*

**References**

1. Kool NP, Waes JAR van, Bijker JB, Peelen LM, Wolfswinkel L van, Graaff JC de, Klei WA van: Artifacts in research data obtained from an anesthesia information and management system. Can J Anaesth 2012; 59:833–41
2. Bender SP, Paganelli WC, Gerety LP, Tharp WG, Shanks AM, Housey M, Blank RS, Colquhoun DA, Fernandez-Bustamante A, Jameson LC, Kheterpal S: Intraoperative Lung-Protective Ventilation Trends and Practice Patterns. Anesth Analg 2015; 121:1231–9