**Supplemental Digital Content 7**

**Data from the three studies included in meta-analysis**

**Derived data of the studies selected for meta-analysis including the prevalence of dichotomous outcome (DCI, PE, poor outcome, good outcome) and continues outcome (fluid intake and fluid balance) for both control and intervention group.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Article | Author | Country | Type of Monitoring | Total numberof patients | DCI | PE | Poor outcome (mRS at 3 months 4-5-6) | Good outcome (mRS at 3 months 0-1-2-3) | Fluid intake(ml/day) | Fluid balance (ml/day) |
| CG | IG | CG | IG | CG | IG | CG | IG | CG | IG | CG | IG | CG | IG | CG | IG |
| Performance of bedside transpulmonary thermodiluition monitoring for goal-directed hemodynamic management after subarachnoid hemorrhage | Mutoh et al. 2009 | Japan | CVP/Fluid balance(+ Swan-Ganz only if DCI) | PiCCO | 50 | 50 | 24 | 16 | 4 | 0 | 28 | 22 | 22 | 28 | 5.756 ± 882 | 4.935 ± 563  |  |  |
| Blood volume measurement to guide fluid therapy after aneurysmal sah | Hoff et al. 2009 | Netherland | CVP/Fluid balance | CBV with PDD | 48 | 54 | 19 | 18 | 5 | 12 |  14 | 17 | 34 | 37 | 4.700(1.100) mean value  | 5.200 (1000) mean value | 800 (500) mean value | 1000 (800) mean value |
| Early intensive versus minimally invasive approach to postoperative hemodynamic management after sah | Mutoh et al. 2014 | Japan | CVP/Fluid balance (uncalibrated less-invasive CO monitoring only if and during hyperdynamic therapy) | PiCCO | 80 | 80 | 14 | 8 | 6 | 1 | 36 | 28 | 44 | 52 |  |  | 1104 | 803 |

**LEGEND**

Control group (CG) = standard hemodynamic monitoring, Intervention group (IG)= advanced hemodynamic monitoring; CO= cardiac output; PDD= Pulse dye densitometry; CBV= circulating blood volume; DCI= delayed cerebral ischemia; CVP= central venous pressure; PE= pulmonary edema; mRS= modified Rankin scale; SAH= subarachnoid haemorrhage; PiCCO= pulse contour continuous cardiac output.