**SUPPLEMENTARY DIGITAL CONTENT**

**Supplementary File 1** **-** Search Strategy. This file represents the search strategy used for MEDINE, EMBASE, and COCHRANE databases.

**Fig. S1** - Trim and fill analysis for mortality. Legend: Unfilled circles represent included trials, black circles are imputed.

**Supplemental Table 1**–Subgroup analysis for mortality. Legend: ICU, intensive care unit; OR, operating room; SVV, stroke volume variation; PPV, pulse pressure variation; SV, stroke volume; HES, hydroxyethyl starch; MD, physician.

**Fig. S2** – Subgroup analysis for mortality based on patient population. Legend: ICU, intensive care unit.

**Fig. S3** – Subgroup analysis for mortality based on fluid responsiveness criteria. Legend: SV, stroke volume.

**Fig. S4** – Subgroup analysis for mortality based on fluid type.

**Fig. S5** – Subgroup analysis for mortality based on timing of intervention. Legend: OR, operating room; ICU, intensive care unit.

**Fig. S6** – Subgroup analysis for mortality based on duration of intervention.

**Fig. S7** – Subgroup analysis for mortality based on study quality.

**Fig. S8** – Subgroup analysis for mortality based on funding source.

**Fig. S9** – The effect of fluid therapy guided by dynamic assessment of fluid responsiveness on intensive care unit length of stay.

**Fig. S10** – The effect of fluid therapy guided by dynamic assessment of fluid responsiveness on duration of mechanical ventilation.

**Fig. S11** – The effect of fluid therapy guided by dynamic assessment of fluid responsiveness on hospital length of stay.

**Fig. S12** – The effect of fluid therapy guided by dynamic assessment of fluid responsiveness on incidence of renal complications.

**Fig. S13** – The effect of fluid therapy guided by dynamic assessment of fluid responsiveness on serum lactate at end-intervention.