**Introduction:**
Fluids are among the most prescribed drug in intensive care, particularly among patient with circulatory failure. Yet, very little is known about their pharmacodynamic properties and this topic has been left largely unexplored. There is a lack of strong scientific evidence in current guidelines for fluid administration in shock. Several factors may impact the haemodynamic efficacy of fluids among which the infusion rate. The aim of this study was to study the influence of fluids administration rate on their pharmacodynamics in particular by studying mean systemic pressure ($P_{ms}$).

**Methods:**
We conducted a prospective observational study in 17 patients with circulatory failure to compare two volume expansion strategies. When a patient required a fluid bolus, 500 mL of normal saline were administered and several haemodynamic parameters were recorded continuously: cardiac output (CO), arterial pressure (AP), mean systemic pressure ($P_{ms}$). Infusion rate was let to the discretion of the attending physician and a “slow” and a “fast” group were determined based on the median of the infusion time. Fluids effect was measured by the area under the curve (AUC), maximal effect ($E_{max}$) and time to maximal effect ($t_{max}$) for each haemodynamic variable.

**Results:**
$P_{ms}$ AUC was higher in the “fast” group compared to the “slow” group ($p=0.043$). We observed a shorter $t_{max}$ and a higher $E_{max}$ for $P_{ms}$ in the “fast” group compared to the “slow” group ($p=0.039$ and 0.02 respectively). Regarding CO, $t_{max}$ was also shorter in the “fast” group ($p=0.041$). AUC and $E_{max}$ were similar between the two groups. Fluid effect dissipated within 60 minutes following the end of fluid infusion for every patient in both groups. The decreasing slope from maximal effect was comparable in the groups, for $P_{ms}$ and CO alike.

**Conclusion:**
The effect of a 500 mL fluid bolus in septic shock patients vanished within one hour. A faster infusion rate increased maximal effect and shortened the delay to reach it. Study is ongoing.