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Evidence based fluid therapy in shock

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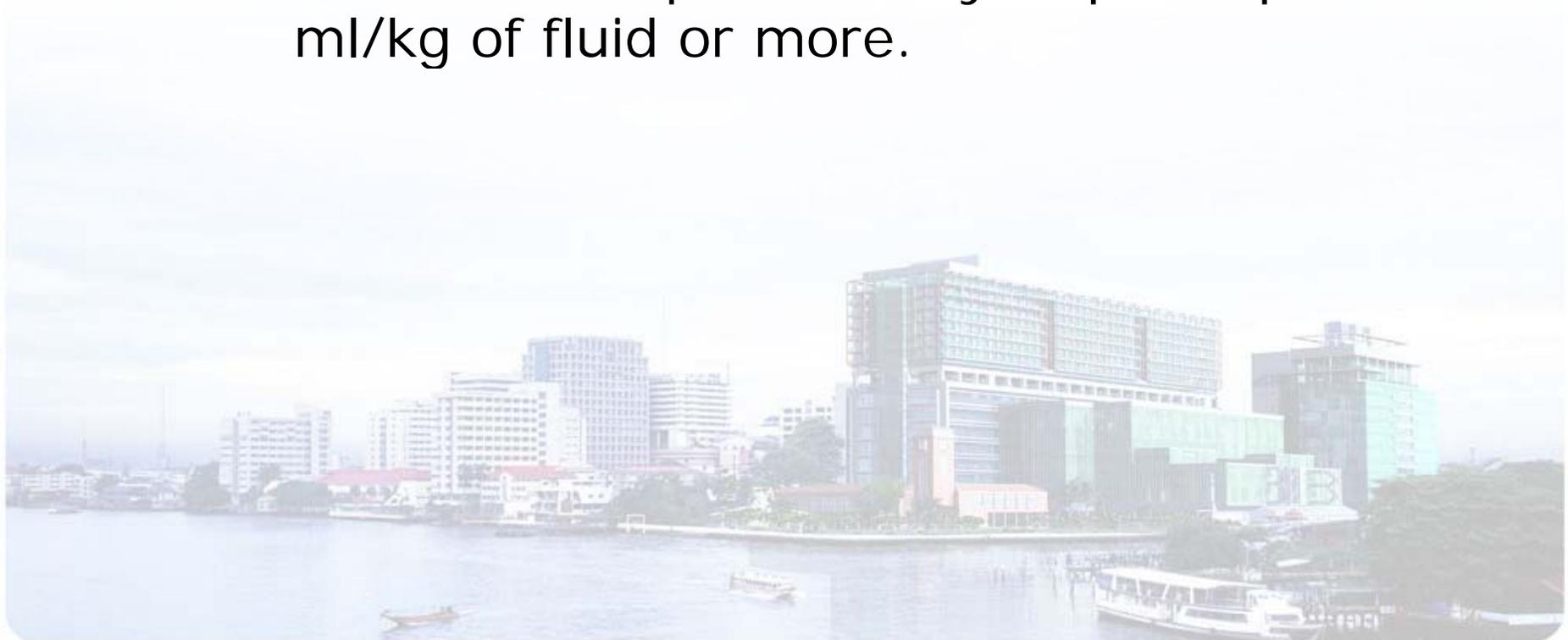
Choice of fluid therapy

- First line and second line of treatment
 - PALS guideline 2010
 - CPG : Surviving sepsis campaign 2012
- Efficacy
 - Plasma expander
 - Tissue edema
 - Effect to the lung : CXR, gas exchange
 - Treatment outcome
- Safety
 - Adverse side effect : crystalloid and colloid
 - Albumin and Synthetic colloid
- Others
 - Comparable cost



Fluid loading in shock

- PALS 2010 recommended
 - 20 ml/kg of isotonic crystalloid as 0.9% NSS or LRS IV/IO in 10-15 min and reassess and patient may require up to 60 ml/kg of fluid or more.





Initial resuscitation: Push boluses of 20 cc/kg isotonic saline or colloid up to & over 60 cc/kg until perfusion improves or unless rales or hepatomegaly develop.
Correct hypoglycemia & hypocalcemia. Begin antibiotics.





The Efficacy and Safety of Colloid Resuscitation in the Critically Ill

- Efficacy of plasma expander
 - Efficacy to achieve hemodynamic goal
 - SAFE study 2004 0.9%NSS & 5% alb
 - VISEP study 2008 10 % HES & LRS
- 28-day mortality, ICU-LOS, No of organ failure and ventilator day are not different.