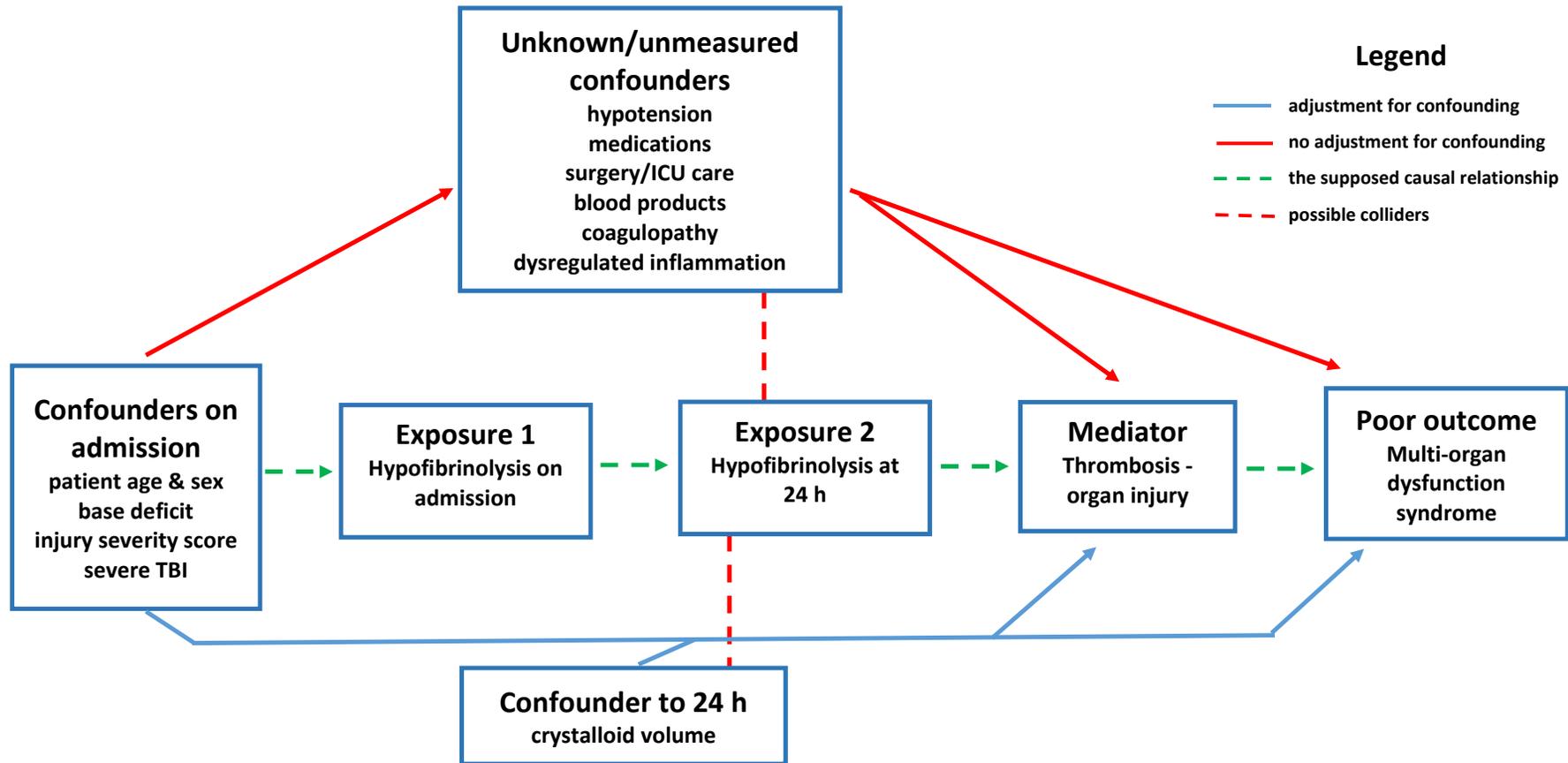


Figure. A directed acyclic graph: a conceptual model of exposure, outcome, mediator and confounders (in this example, other potential colliders and mediators are ignored). Rossetto et al adjusted for some confounders, but not others.



Confounders are associated with the exposure and outcome but do not lie on the causal pathway. Adjustment for confounders is necessary to disrupt spurious links between exposure and outcome – that is, control for confounding bias. Where important variables are unmeasured or unknown, then confounding will persist. A mediator links an exposure to an outcome, providing mechanistic insights along a potential causal pathway. Dotted straight arrow indicates causal relation under investigation; solid arrows indicate known relationships. TBI=traumatic brain injury, ICU=intensive care unit.