

The effect of mesenchymal stem cells on the host response in severe community-acquired pneumonia

Reijnders TDY, et al. *Thorax* 2024. DOI: 10.1136/thorax-2024-222026

Population

- 82 critically ill patients with sepsis due to community-acquired bacterial pneumonia

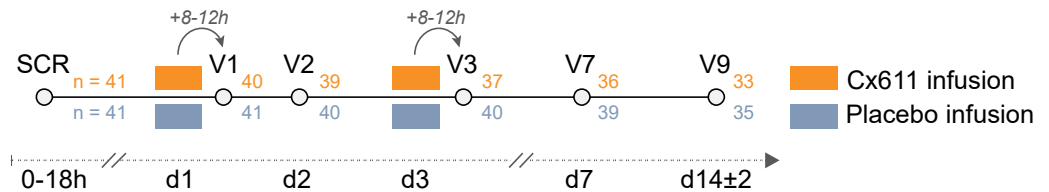
Interventions

- Cx611: Adipose-derived mesenchymal stem cells
- Placebo

Measurements

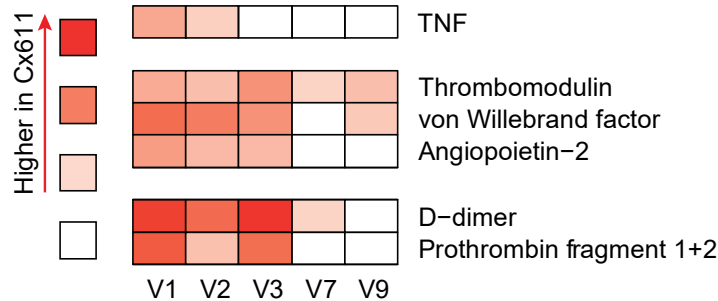
- 29 plasma protein biomarkers
- Blood transcriptomics

Six time points:

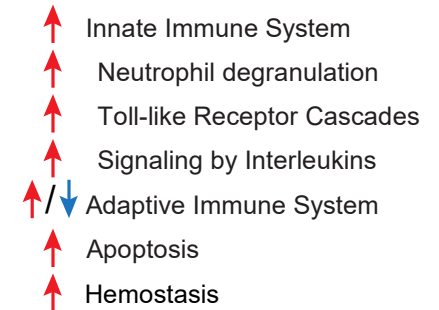


Results

Plasma proteins



Blood transcriptomics



Conclusion: Mesenchymal stem cell infusion in patients with sepsis due to community-acquired bacterial pneumonia leads to increased endothelial and procoagulant plasma biomarkers, and increased gene expression in pathways related to innate immunity, haemostasis, and apoptosis.