Catabolism in Critical Illness: A Reanalysis of the REducing Deaths due to OXidative Stress (REDOXS) Trial*

**Design**
Reanalysis of the REDOXS trial

Determine if urea-to-creatinine ratio (UCR), *catabolic marker of prolonged critical illness*, was associated with mortality after 7 days of ICU stay

**Patients** *(n = 1021)*
Adult ICU patients with ≥ 2 organ failure related to critical illness & survived to day 7

**Model adjusted for age, renal dysfunction/replacement therapy, SOFA score, protein intake, and glutamine at randomization**

↑ UCR associated with ↑ mortality
(HR, 2.15, 1.66–2.82, for a 2-fold ↑ UCR)

UCR at day 7 mediated risk of death associated with glutamine supplementation
(HR, 1.20, CI 1.04–1.38)

**Conclusion**
Catabolic phenotype measured by ↑ UCR is associated with ↑ risk of death during prolonged ICU stay & signals the deleterious effects of glutamine administration in the REDOXS study

Data from Haines RW, et al. *Crit Care Med*. 2022