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**Obesity and acute kidney injury:
reply to Dr. Robert
and coworkers**

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Dear Editor,
We thank Dr. Robert and colleagues [1] for their comments on our study on the impact of BMI on the evolution and prognosis of acute kidney injury (AKI) [2]. We remind the readers that in this study the impact of BMI on the evolution AKI was corrected for by several potential confounders, such as age, severity of disease, diabetes status, or comorbidities.

Dr. Robert raises another possibility for a bias, i.e., the criteria for AKI diagnosis used in the Risk, Injury, Failure, Loss, and End-Stage Kidney

(RIFLE) classification. They discuss whether urinary output should—as required in both RIFLE and Acute Kidney Injury Network (AKIN) classifications—be corrected for by body weight which might introduce a bias in obese patients. Our diagnosis of AKI, however (as in most studies), was not based on urine criterion but on the creatinine criterion and the necessity of renal replacement therapy.

Dr. Robert also questions the validity of the creatinine criterion because obese persons also have a higher muscle mass and thus a higher creatinine formation. This fact—they argue—may result in an erroneous allocation of several subjects into the F category and also in an earlier initiation of renal replacement therapy in obese patients. This is certainly a point well taken; it is a problem which is inherent to currently used AKI classifications which all are based on serum creatinine. However, we only included patients in a really “failure” situation and the necessity of renal replacement therapy, a decision which rarely is based on creatinine concentration alone. A substantial impact of this potential bias on our results can largely be ruled out.

References

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2. Druml W, Metnitz B, Schaden E, Bauer P, Metnitz PG (2010) Impact of body mass on incidence and prognosis of acute kidney injury requiring renal replacement therapy. *Intensive Care Med* 36:1221–1228

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