



# Neonatal Acute Kidney Injury: Understanding of the Impact on the Smallest Patients

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## INTRODUCTION

Diagnosis and treatment of AKD is complex and requires an interdisciplinary approach that forms the basis of a new specialty called Critical Care Nephrology (CCN). Not only nephrologists but also intensivists, cardiologists and cardiac surgeons should be jointly involved [1]. Indeed, multidisciplinary treatment teams can address the multiple needs of critically ill patients based on the pathophysiological basis of the syndrome. In this context, it is important to identify populations and individuals at risk of developing AKI [2]. When it comes to ventilators, teamwork at CCN can represent a life-saving approach, bringing together all the specific knowledge to improve patient outcomes. All ICU patients live in a large multidisciplinary critical care unit with a sufficient number of specially trained critical care physicians, nurses, and other medical personnel to treat urgent problems [3]. It has been suggested several times that it should be treated collectively by specialists. Efforts have already been made to build consensus on the importance of working together as a team in CCN. Ideally, this approach should greatly benefit critically ill patients. However, in many clinical settings, there is still much room for further improvement in implementing a multidisciplinary approach to AKI, prevention strategies, management options, and interventions that are truly tailored to patient needs and specific medical conditions [4].

## DESCRIPTION

The standard criteria and decision-making algorithms necessary to account for the multitude of factors that can influence clinical outcome can only be developed in peer settings [5]. From his experience in Vicenza, the implementation of the Nephrology Rapid Response Team is one of his most advanced applications of the concepts of the CCN philosophy [3]. We hope that many other

er centers will conduct similar projects to validate the usefulness of this interdisciplinary approach based on precision medicine. Diagnosis and treatment of AKD is complex and requires an interdisciplinary approach that forms the basis of a new specialty called Critical Care Nephrology (CCN). Not only nephrologists but also intensivists, cardiologists and cardiac surgeons should be jointly involved. Indeed, multidisciplinary treatment teams can address the multiple needs of critically ill patients based on the pathophysiological basis of the syndrome [1]. In this context, it is important to identify populations and individuals at risk of developing AKI. When it comes to ventilators, teamwork at CCN can represent a life-saving approach, bringing together all the specific knowledge to improve patient outcomes. All ICU patients live in a large multidisciplinary critical care unit with a sufficient number of specially trained critical care physicians, nurses, and other medical personnel to treat urgent problems [4]. It has been suggested several times that it should be treated collectively by specialists.

## CONCLUSION

Efforts have already been made to build consensus on the importance of working together as a team in CCN. Ideally, this approach should greatly benefit critically ill patients. However, in many clinical settings, there is still much room for further improvement in implementing a multidisciplinary approach to AKI, prevention strategies, management options, and interventions that are truly tailored to patient needs and specific disease states. The standard criteria and decision-making algorithms necessary to account for the multitude of factors that can influence clinical outcome can only be developed in peer settings. From his experience in Vicenza, the implementation of the Nephrology Rapid Response Team is one of his most advanced applications of the concepts of the CCN philosophy. We hope that many other

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## REFERENCES

1. Nardo M Di, Ficarella A, Ricci Z, Rosa L, Francesca S, et al. (2013) Impact of severe sepsis on serum and urinary biomarkers of acute kidney injury in critically ill children: An observational study. *Blood Purif* 35(1-3): 172-176.
2. Alaro D, Bashir A, Musoke R, Wanaiana L (2014) Prevalence and outcomes of acute kidney injury in term neonates with perinatal asphyxia. *Afr Health Sci* 14(3): 682-688.
3. S Viswanathan, B Manyam, T Azhibekov, MJ Mhanna (2012) Risk factors associated with acute kidney injury in extremely low birth weight (ELBW) infants. *Pediatr Nephrol* 27(2): 303-311.
4. Weintraub AS, Connors J, Carey A, Blanco V, Green RS (2016) The spectrum of onset of acute kidney injury in premature infants less than 30 weeks gestation. *J Perinatol* 36(6): 474-480.
5. Hoste EA, Bagshaw SM, Bellomo R, Cynthia MC, Roos Colman, et al. (2015) Epidemiology of acute kidney injury in critically ill patients: The multinational AKI-EPI study. *Intensive Care Med* 41(8): 1411-1423.