

NOVEL CONTRIBUTIONS OF THE DISSERTATION

PhD Candidate: NGUYEN THANH TRUNG

Dissertation Title: *“Study on the value of serum cystatin C in the diagnosis of acute kidney injury and mortality prognosis in patients with decompensated cirrhosis ”*

Major: Internal Medicine Code: 9 72 01 07

Scientific supervisor: Associate Professor, PhD TRAN XUAN CHUONG

Training Institution: Hue University of Medicine and Pharmacy, Hue University

Novel Contributions of the Dissertation

1. Scientific significance

Cystatin C is a sensitive biomarker of glomerular filtration rate that is minimally affected by non-renal factors. This study contributes to the existing body of knowledge by:

(1) Providing additional evidence regarding the value of serum cystatin C in the early detection of acute kidney injury in patients with decompensated cirrhosis.

(2) Clarifying the relationship between serum cystatin C concentrations and disease severity through established prognostic scoring systems, including Child-Pugh and MELD.

(3) Evaluating the prognostic value of serum cystatin C for mortality prediction, thereby providing a scientific basis for considering the application of this biomarker in risk stratification.

2. Practical significance

The study findings may support more accurate diagnosis of acute kidney injury in clinical practice by overcoming the limitations associated with serum creatinine measurements. Consequently, these findings may facilitate mortality prediction and guide early intervention strategies in patients with decompensated cirrhosis. This study also provides a basis for proposing the implementation of

serum cystatin C testing to improve patient management and treatment effectiveness in healthcare settings.

3. Contributions of the dissertation

This is the first study conducted in Vietnam to investigate the value of serum cystatin C concentrations in the diagnosis of acute kidney injury and prediction of clinical outcomes in patients with decompensated cirrhosis.

The study findings further confirm the role of serum cystatin C in the early detection of renal dysfunction and prediction of mortality. These findings may support risk stratification and facilitate more timely and intensive therapeutic interventions from the early stages of disease progression, thereby potentially improving treatment outcomes and reducing serious complications.

Hue, day month year 2026

Scientific supervisor



Assoc. Prof. Tran Xuan Chuong, MD, PhD

PhD Candidate



Nguyen Thanh Trung