Diagnostic accuracy of nurse-performed pulmonary ultrasound in the assessment of excess fluid volume in patients with acute kidney injury: study protocol

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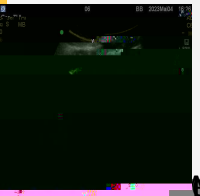
INTRODUCTION

Persistent pulmonary congestion is a predictor of poor outcomes in critically ill patients. The risk of death are up to four times higher when these patients show signs of pulmonary congestion on ultrasound (Zoccali, 2013). Point-of-care ultrasonography (PoCUS) can contribute to the early identification of the increased fluid volume status in patients with acute kidney injury, which can improve patient safety.

STUDY GAP & PURPOSE

Despite the increase in the number of publications about the use of PoCUS by nurses, no studies were found aimed at evaluating the accuracy of PoCUS for identifying increased fluid volume. This study protocol aims to evaluate the diagnostic accuracy of nurse-performed pulmonary ultrasound in the assessment of Excess fluid volume in patients with acute kidney injury.

METHOD

110 consecutive adult patients with acute kidney injury from a brazilian private Intensive Care Unit (ICU) will take part in this prospective diagnostic test accuracy study. The pulmonary ultrasound (Figure 2) will be performed by a nurse specialist according to BLUE protocol (Figure1) (Lichtenstein;