Comparison of Fluid Stewardship Practice in Patients With and Without COVID-19

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Abstract: 325

*Creators of slideset

Importance of Fluid Stewardship

Fluid resuscitation in septic shock: A positive fluid balance and elevated central venous pressure are associated with increased mortality*

Cumulative Fluid Balance and Mortality in Septic Patients With or Without Acute Kidney Injury and Chronic Kidney Disease*

Comparison of Two Fluid-Management Strategies in Acute Lung Injury

Positive fluid balance as a major predictor of clinical outcome of patients with sepsis/septic shock after discharge from intensive care unit

Fluid overload is associated with an increased risk for 90-day mortality in critically ill patients with renal replacement therapy: data from the prospective FINNAKI study

Restricted fluid resuscitation in suspected sepsis associated hypotension (REFRESH): a pilot randomised controlled trial

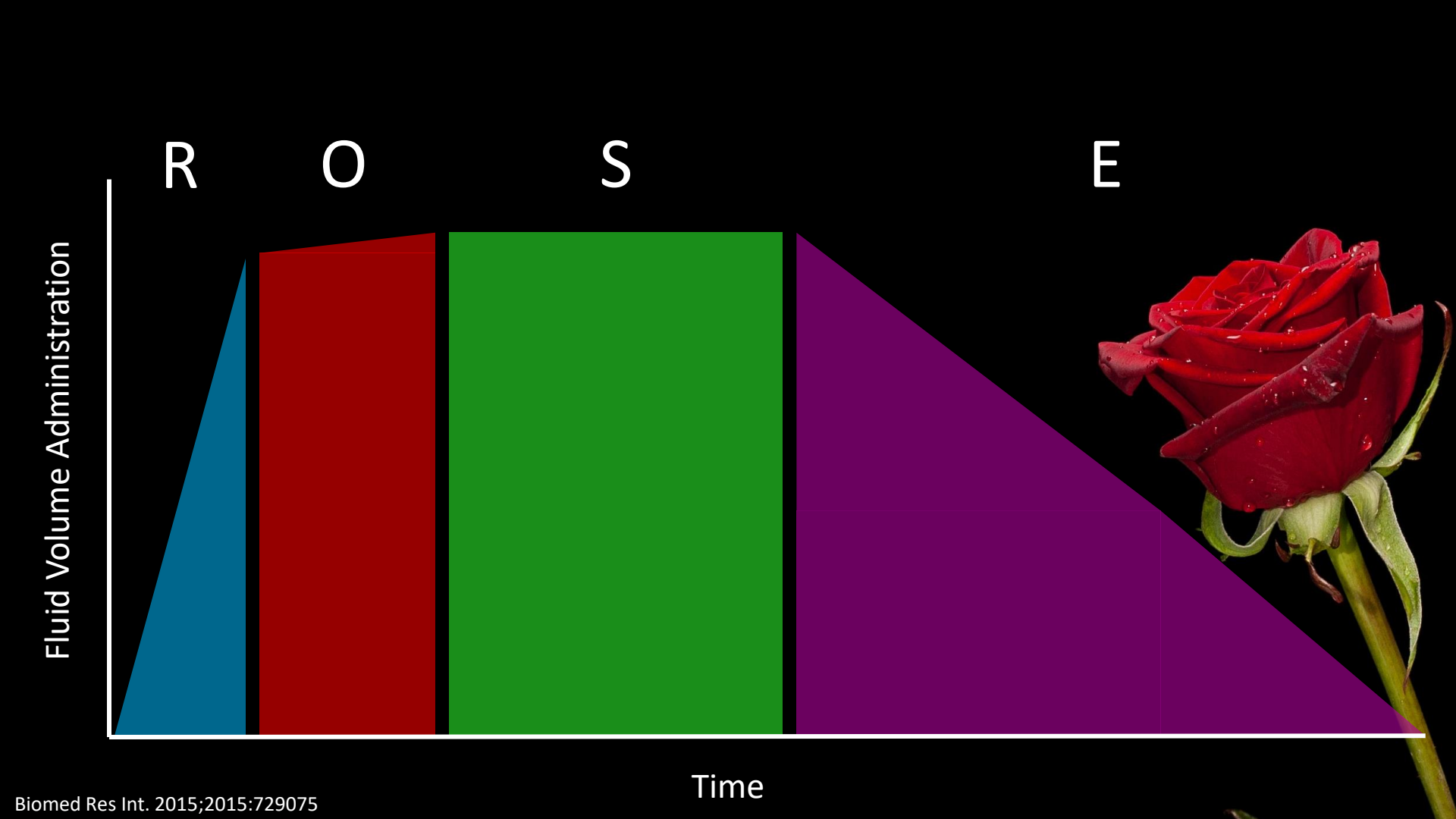
The Restrictive Intravenous Fluid Trial in Severe Sepsis and Septic Shock (RIFTS): a Randomized Pilot Study

Restricting volumes of resuscitation fluid in adults with septic shock after initial management: the CLASSIC randomised, parallel-group, multicentre feasibility trial

Early Use of Norepinephrine in Septic Shock Resuscitation (CENSER)
A Randomized Trial

Liberal versus Restrictive Intravenous Fluid Therapy for Early Septic Shock: Rationale for a Randomized Trial

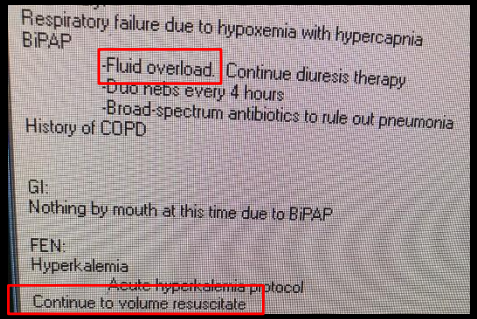
Intensive Care Med 2014;40:1897–1905; Crit Care Med 2016;44:1891–1900; Critical Care 2012, 16:R197; Intensive Care Med 2018;44(12):2070-2078; Crit Care Med 2019;47(7):951-959
Crit Care Med 2011;39:259–65; Am J Emerg Med 2016;34(11):2122-26; Ann Am Thorac Soc 2015;12(12):1837-44; Intensive Care Med 2016;42(11):1695-1705; N Engl J Med 2006;354:2564-75
Am J Respir Crit Care Med 2019;199(9):1097-1105; Ann Emerg Med 2018;72(4):457-466



Biomed Res Int. 2015;2015:729075

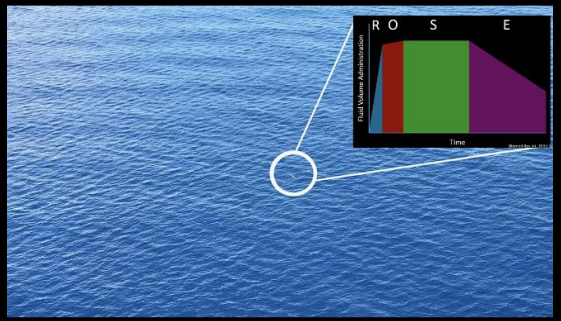
Four Rights

PATIENT



DRUG

DOSE

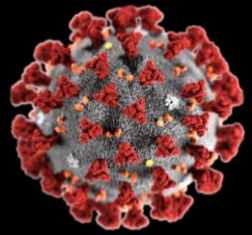


ROUTE

J Pharm Pract. 2020 Dec;33(6):863-87

Study Purpose

- To compare pharmacist fluid stewardship recommendations in critically ill patients with and without COVID-19
- Primary Outcome: number of fluid stewardship recommendations per patient day
- Secondary Outcomes: number of recommendations related to each phase of ROSE Model and each of Four Rights



See how recommendations were classified here: doi: 10.1093/ajhp/zxab453

Our Sample

Inclusion:	Exclusion:
• ≥ 18 years of age • Admitted to ICU for ≥ 72 hrs • June 2016 to June 2019 for non-COVID-19 patients • May 2020 to September 2020 for COVID-19 patients • Followed by academic pharmacy team	• No documentation of pharmacy services

79 COVID-19 patients and 420 patient days

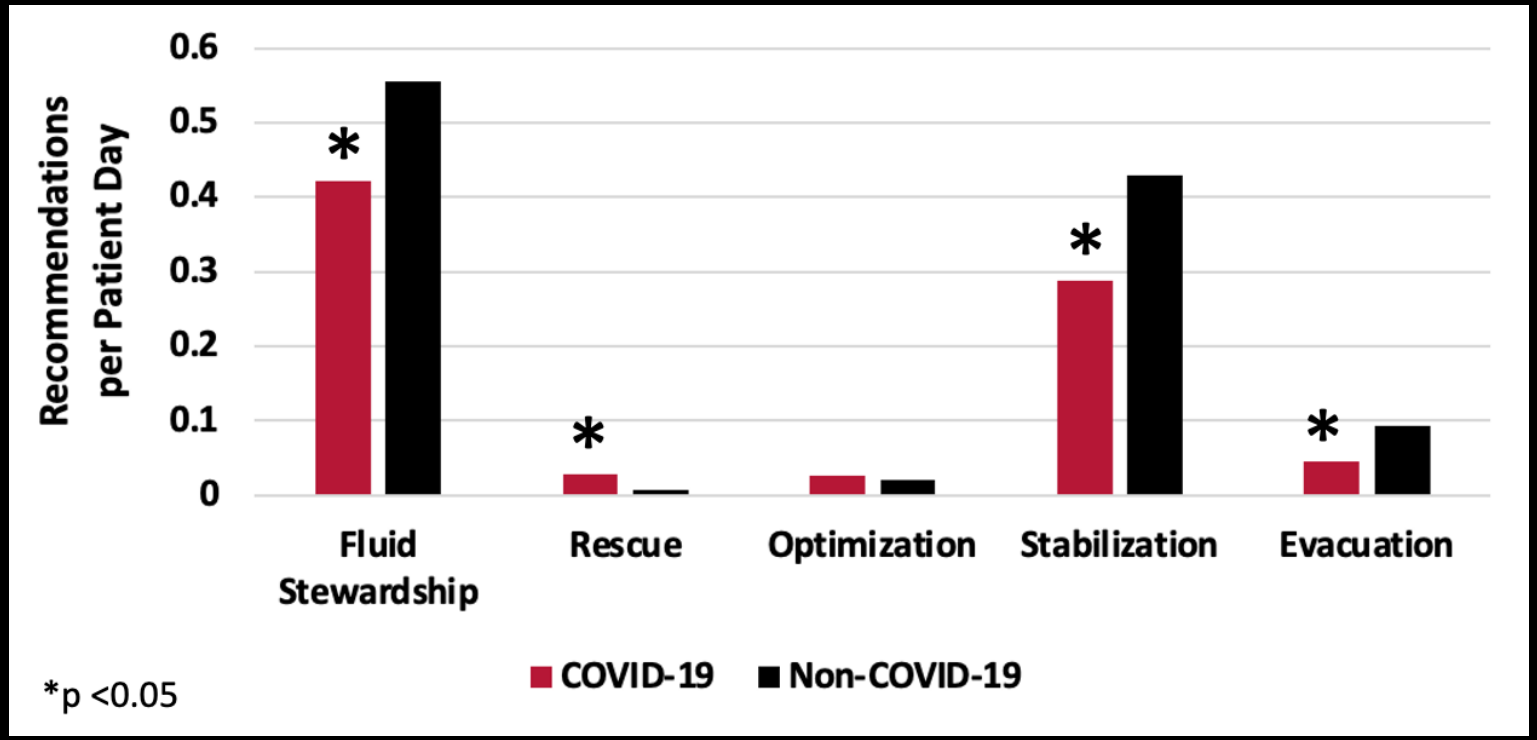
350 non-COVID-19 patients and 895 patient days

3,900 total recommendations

12-bed medical ICU and 25-bed COVID-19 ICU
450-bed community teaching hospital

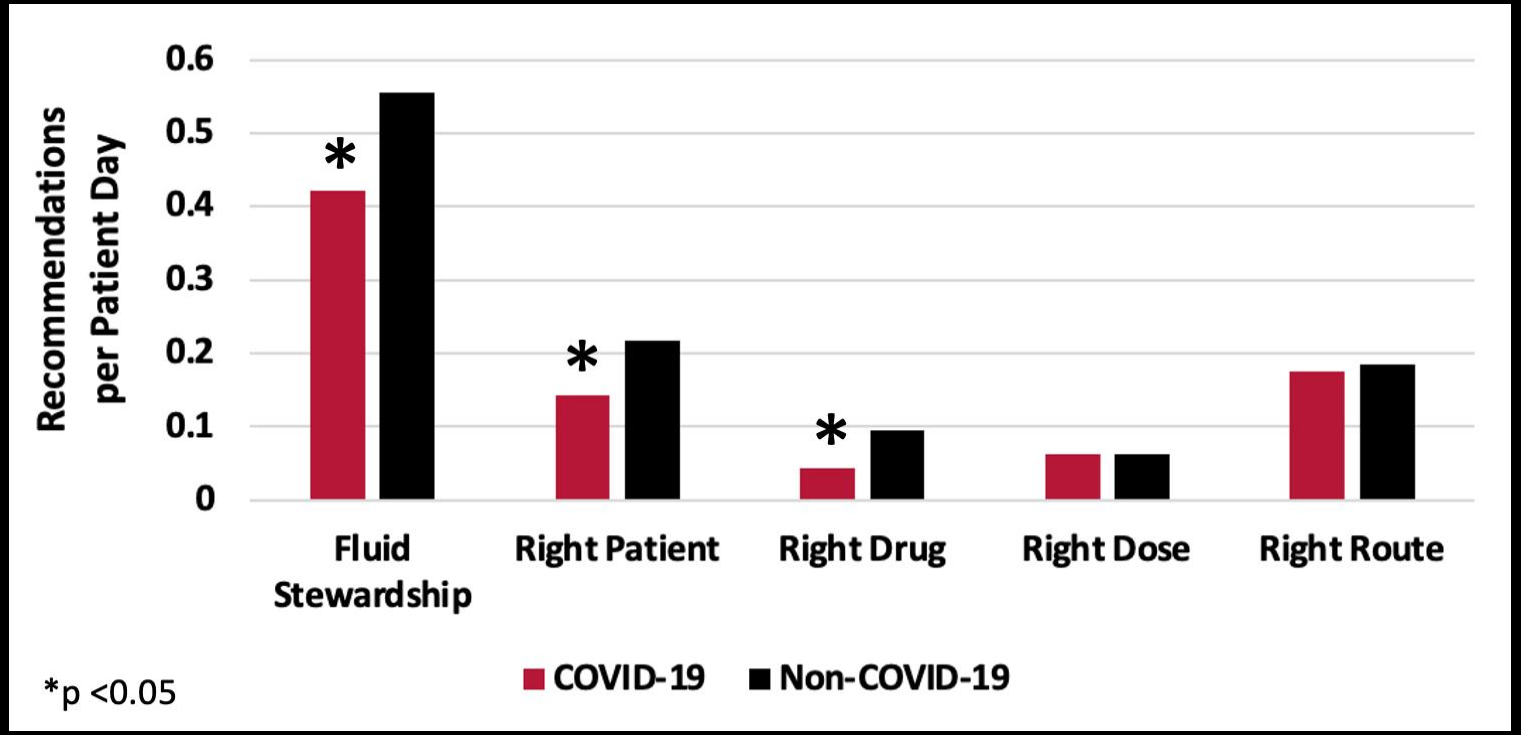
Results

Recommendations Related to the ROSE Model



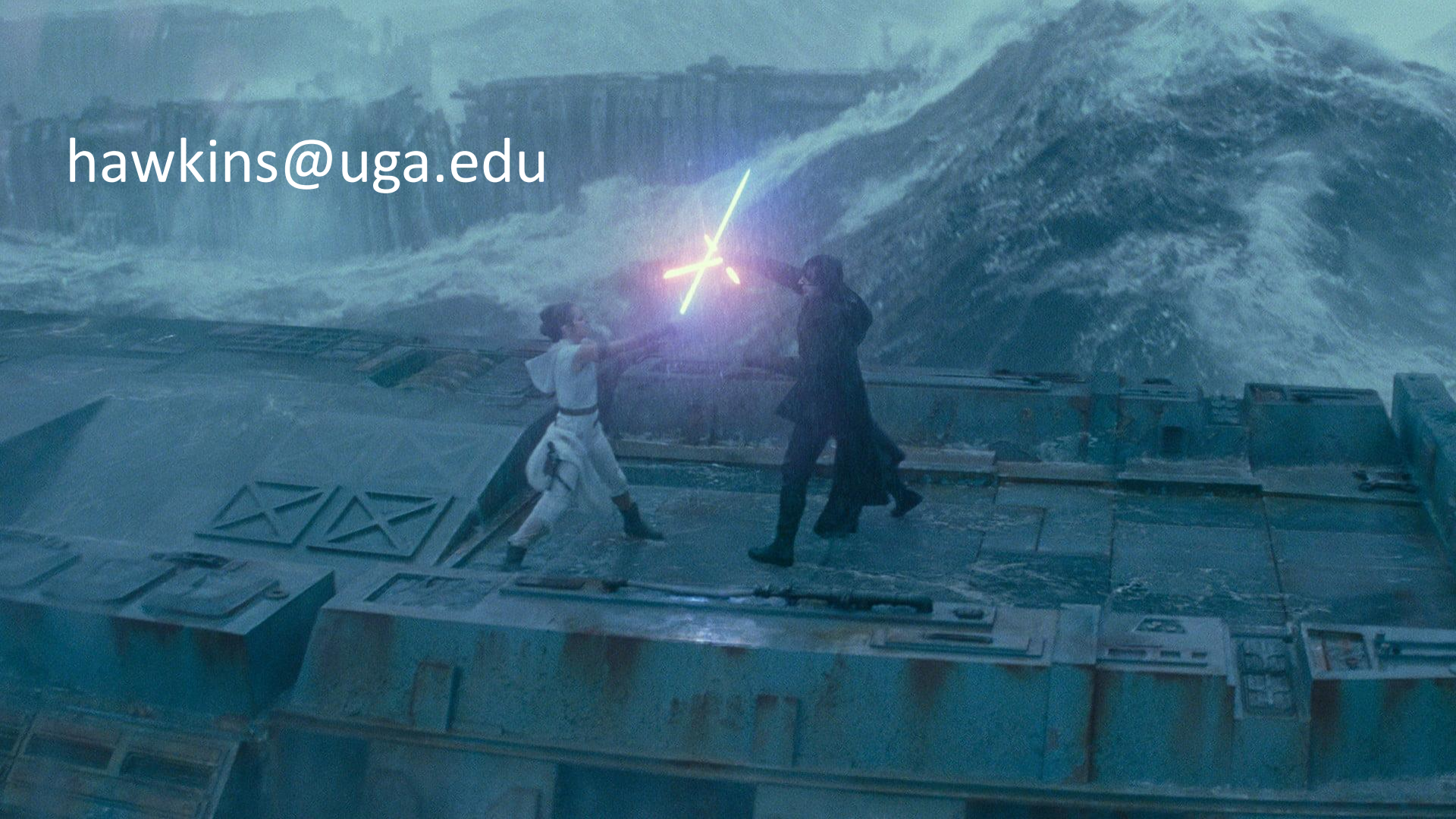
Results

Recommendations Related to the Four Rights



Conclusion

- Fewer recommendations in COVID-19 group
  - Except Rescue phase
  - Varied for stages of ROSE Model and Four Rights
- Possibly explained by differences between the two ICUs
  - Disease-specific ICU
  - Prolonged ICU length of stay in COVID-19
  - Entry into patient rooms
- Limitations/Future direction:
  - Recommendations vs. interventions
  - Patient outcomes



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