

Remdesivir Associated with Decreased Mortality in Hospitalized COVID-19 Patients

A Real-world Evidence Study using Natural Language Processing

José Ramón Arribas López¹, M^a Pilar Ruiz Seco², Francisco Fanjul Losa³, Beatriz Díaz Pollán¹, Patricia González-Ruano Pérez², Adrián Ferre Beltrán³, Rosa de Miguel Buckley¹, Laura Portillo Horcajada², Essy Mozaffari⁴, Cristina de Álvaro Pérez⁵, Javier Leal Martínez-Bujanda⁵, Savana Research Group⁶, Melchor Riera Jaume³

1. Hospital Universitario La Paz, 2. Hospital Universitario Infanta Sofía, 3. Hospital Universitario Son Espases, 4. Gilead Sciences Global, 5. Gilead Sciences Spain, 6. Savana Research

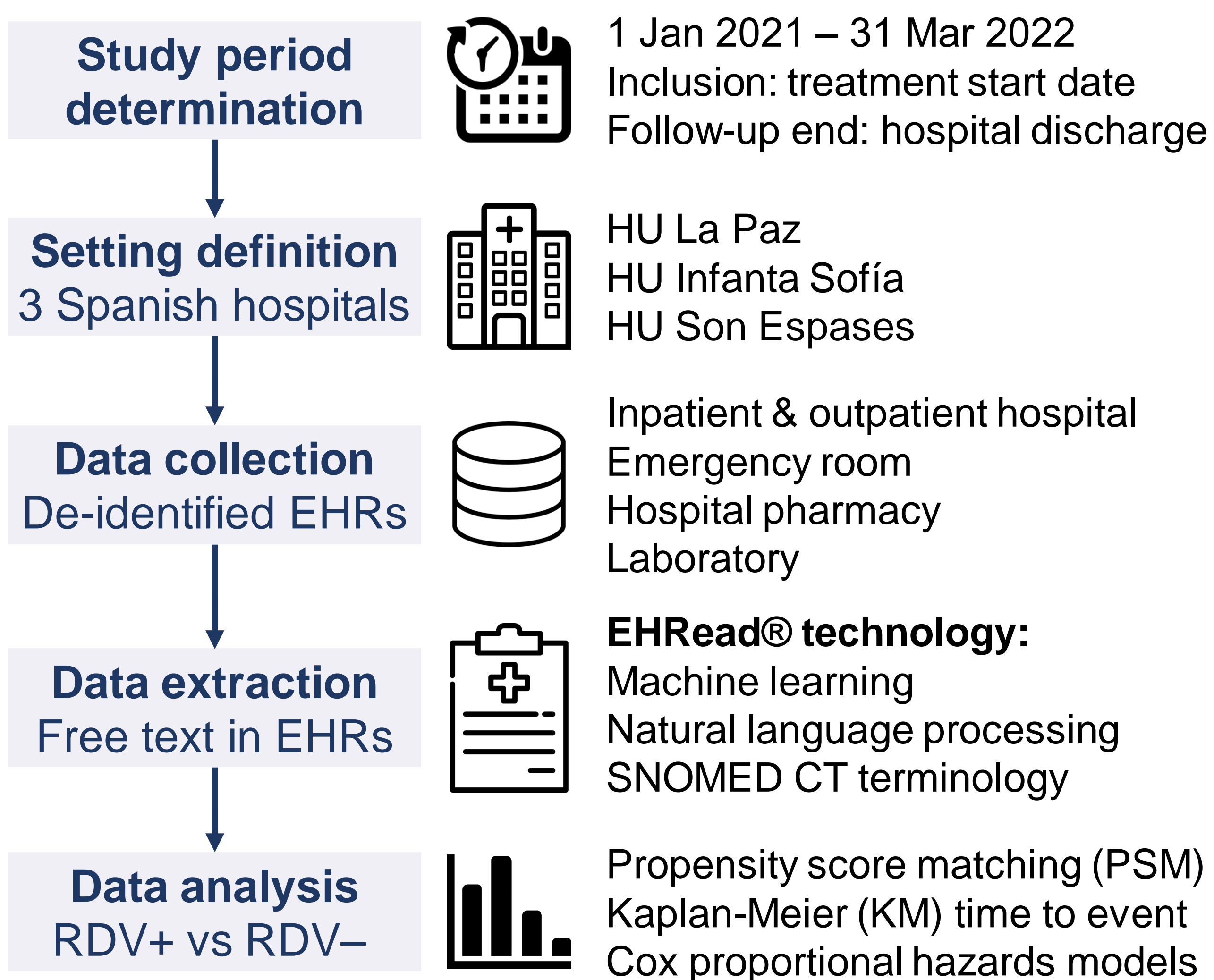
Remdesivir (RDV) was one of the first antivirals approved for COVID-19 treatment. It is recommended by most (inter) national guidelines for mild/moderate COVID-19 pneumonia patients and those at risk for progression, as it has proven efficacy in outcomes such as mortality or disease progression and maintains antiviral activity against all studied variants.

Objective

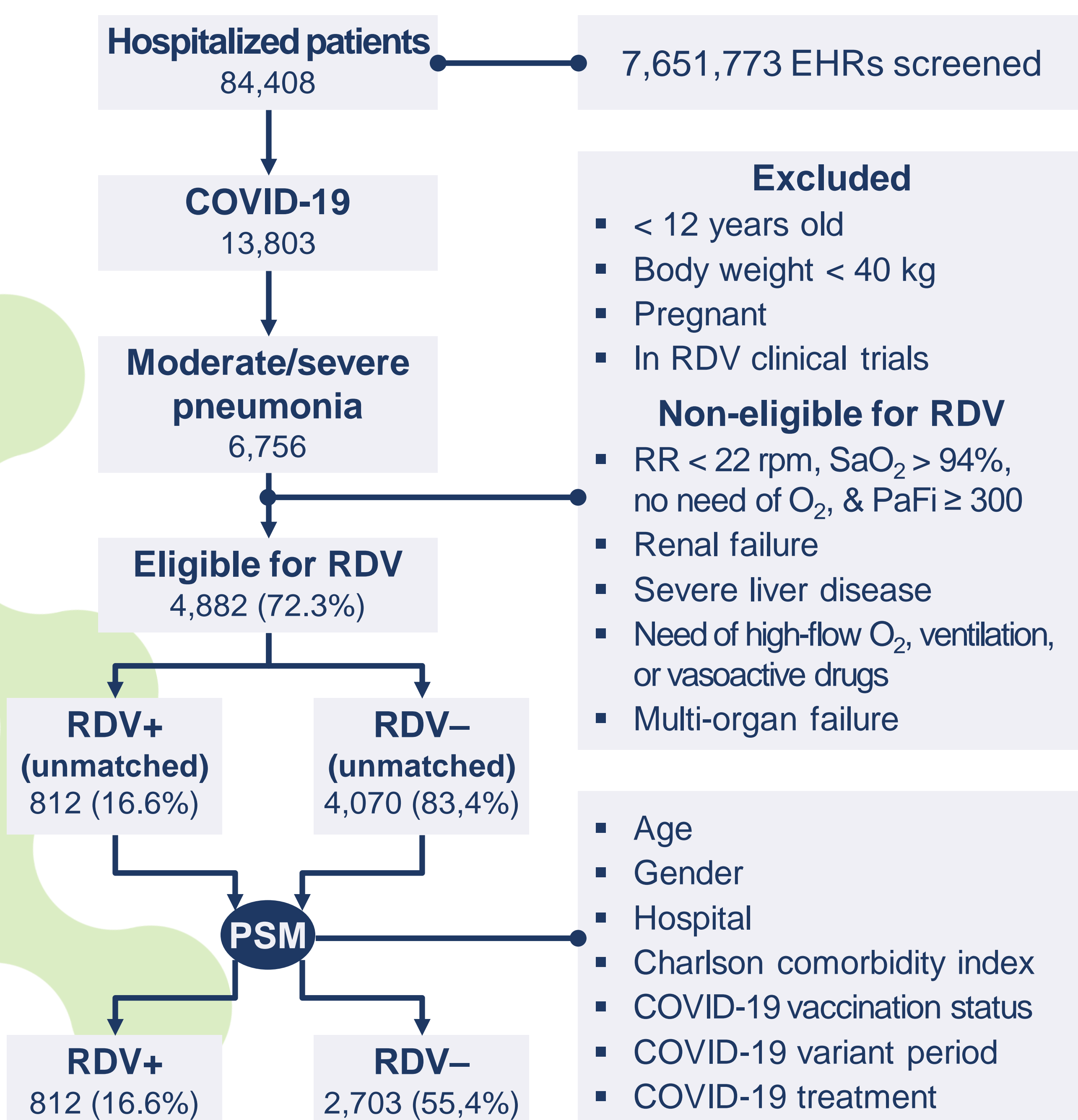
To obtain real-world evidence for the effect of RDV on patients with moderate/severe COVID-19 pneumonia in Spain

Methods

Observational, retrospective, multicenter study based on the secondary use of unstructured clinical data in electronic health records (EHRs)

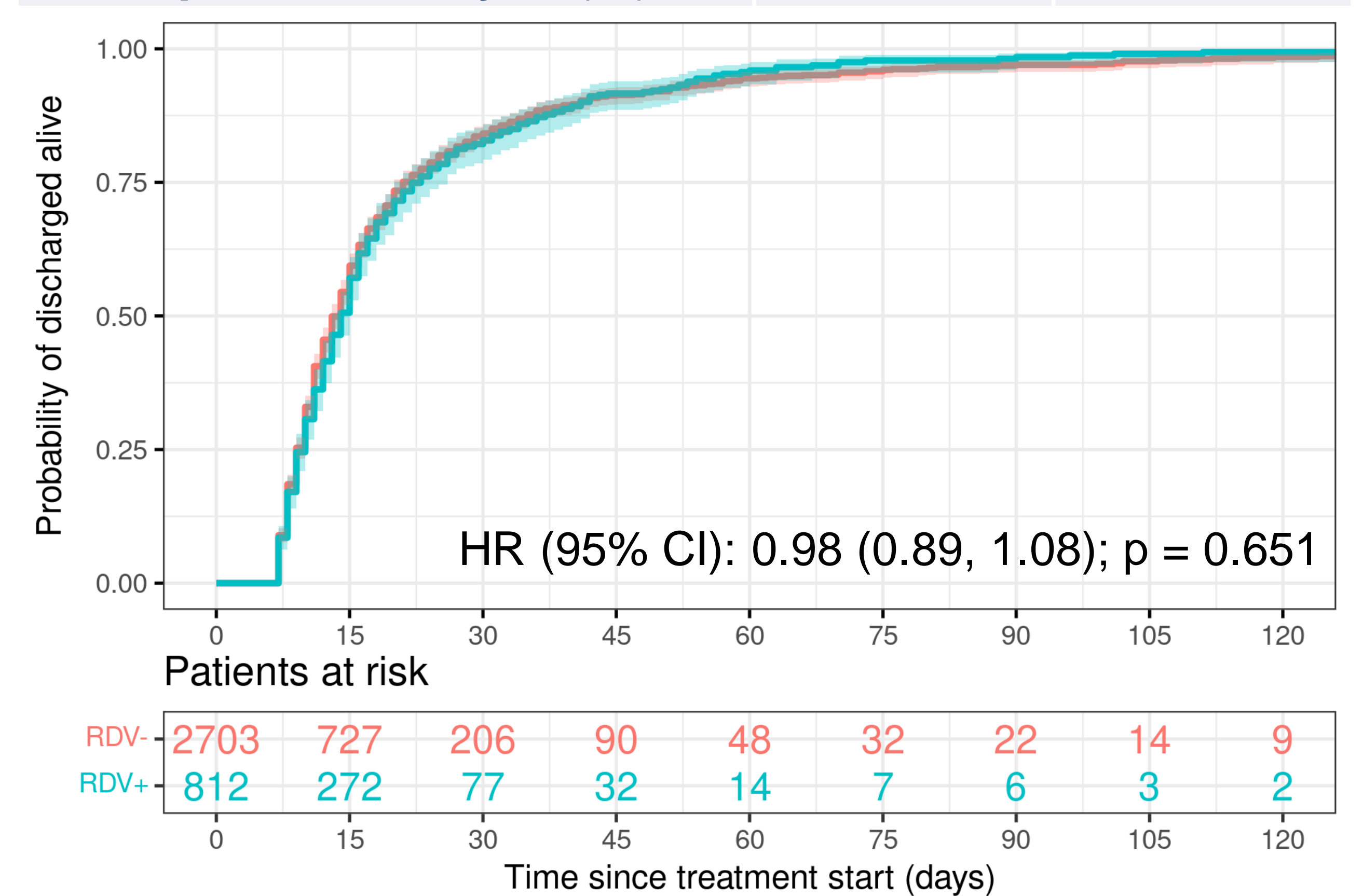


Patients

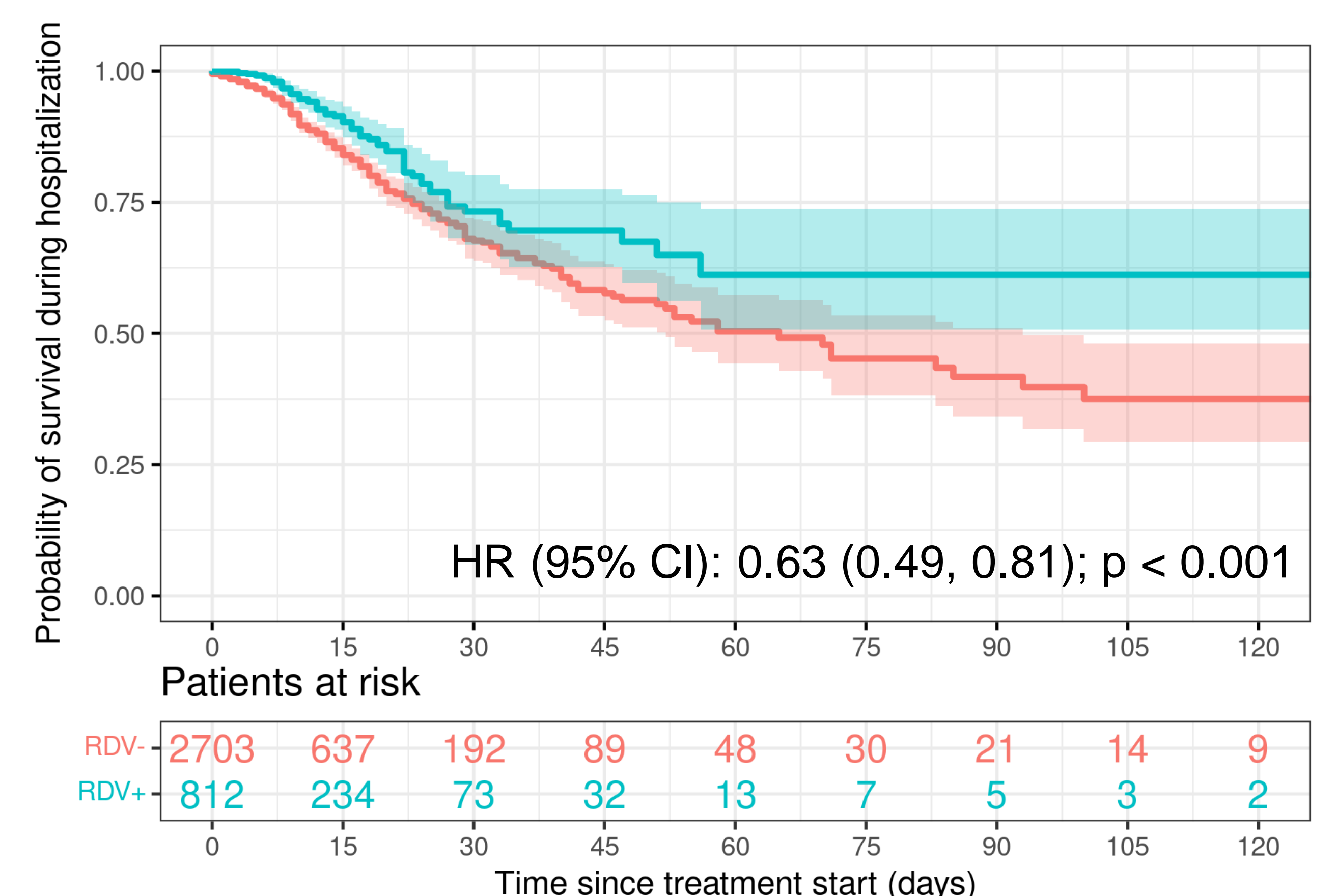


Results

	RDV+	RDV-
Male sex, n (%)	497 (61.2)	1610 (59.6)
Age, years, median (Q1, Q3)	67 (54.8, 79)	71 (56.5, 82)
LOS, months, median (Q1, Q3)	12 (8, 19)	11 (8, 18)
In-hospital mortality, n (%)	74 (9.1)	345 (12.8)



Hospital length of stay (LOS). KM plot and HR showed no differences in time to be discharged alive. Patients with in-hospital death, LOS<6 days, or with a loss of follow-up were censored.



In-hospital mortality. KM plot and HR showed a higher probability to survive during hospitalization in RDV+ than in RDV-. Patients discharged alive, or with a loss of follow-up were censored.

Conclusions

Although no differences were observed in hospital LOS, RDV+ had a 37% in-hospital mortality risk reduction compared with RDV-