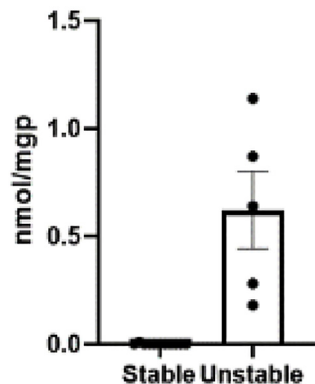




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Mean MPO activity by coronary plaque phenotype



neuroimaging when compared to those who were asymptomatic and lacked neuroimaging features of ipsilateral stroke.

Discussion: MPO is more active within vulnerable human carotid and coronary plaques, and MPO activity appears to correlate with symptomatic carotid disease and stroke. These data support further investigation into the potential utility of arterial MPO activity as a diagnostic tool and therapeutic target in the treatment and surveillance of high-risk atherosclerosis.

<https://doi.org/10.1016/j.hlc.2022.06.314>

313

Association Between Troponin Elevation and Severity of COVID-19 Infection: A Systematic Review and Meta-Analysis

S. Mahendran^{1,*}, P. Sekhar¹, M. Malaty¹, S. Khanna¹, A. Amarasekera^{2,3}, R. MacIntyre⁴, T. Tan^{2,3}

¹ Department of Cardiology, Blacktown Hospital, Blacktown, NSW, Australia

² School of Medicine, Western Sydney University, Sydney, Australia

³ School of Nursing and Midwifery, Western Sydney University, Sydney, Australia

⁴ The Kirby Institute, University of New South Wales, Faculty of Medicine, Sydney, Australia

Background/Aim: The World Health Organization (WHO) defines severe COVID-19 infection as fever and/or respiratory infection with positive COVID-19 nucleic acid detection plus one of the following: respiratory rate >30 breaths/min; severe respiratory distress; or SpO₂ ≤93% on room air. However, there are numerous incidents of cardiac involvement in severe COVID-19. Troponin levels have long been established as a prognostic marker in cardiac injury. Hence, this systematic review aimed to associate raised troponin with disease severity in COVID-19 infection.

Methods: A systematic literature review of scientific databases was performed to identify relevant published studies between January 2000 and November 2021. 2,551 publications were identified, of which 2,529 were excluded.

Results: 22 studies were included for analysis. COVID-19 disease severity was poorly documented across studies and with widely varied definitions. The reported association between cardiac injury and coronavirus disease severity had high heterogeneity across studies (I²=99.10%). The overall effect size was non-significant (p=0.07, CI -0.02–0.47). However, a subgroup analysis of 33 studies from the same search reported a significant association between cardiac injury and ICU admission (p=0.00, CI 0.49–0.94).

Conclusion: Whilst this review does not suggest a significant association between cardiac injury and overall disease severity, there is a correlation with rate of ICU admission, which may serve as a surrogate marker of disease severity. Findings may be limited by the high degree of variability of severity definitions across studies. Use of a standardised definition of disease severity in COVID-19, such as that described by the WHO may improve reliability of the findings.

<https://doi.org/10.1016/j.hlc.2022.06.315>

314

This abstract has been withdrawn

315

Bleeding Risk Associated With Anticoagulation in Elderly Patients With Atrial Fibrillation (AF)

R. Ravikulan^{*}, L. Ephraums, E. Phan, R. Hillan, P. Liu

Flinders Medical Centre, Bedford Park, SA, Australia

Background: Multimorbidity and bleeding risk significantly impact the decision to commence anticoagulation in elderly patients with AF. Literature suggests there is often an overestimation of these risks. The primary aim of this study was to evaluate anticoagulation use in elderly patients with AF and its effects on bleeding-related outcomes.

Methods: Patients aged ≥75 years with a new diagnosis of AF during an admission at Flinders Medical Centre in 2015–2017 were studied retrospectively and outcomes of interest collected until July 2021. Data are presented as median, and statistical analysis by Mann-Whitney U and chi-square test, p<0.05, was reported.

Results: Of 174 patients, 73 (42%) were anticoagulated with one of warfarin, novel oral anticoagulant agent, or enoxaparin at discharge. The anticoagulated and non-anticoagulated groups were of similar age (83 vs 82 years), had similar gender distribution (53% females vs 56%), CHADS-VAsC score 4, HASBLED score 3, and similar rates of cognitive impairment (15% vs 22%). On follow-up, the rates of extracranial bleeds (23 vs 14, p=0.125) and intracranial bleeds (2 vs 0, p=0.094) were similar, regardless of anticoagulation status. Among anticoagulated patients with intracranial bleeds, 11 (47%) had concurrent antiplatelet use.