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| **Evaluation of COVID-19 Severity Prediction Scores in Aotearoa New Zealand 2022** |
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| **Introduction/Aim:** COVID-19 severity prediction scores are useful for clinical management, but need evaluation in the contemporary New Zealand context.We sought to describe COVID-19 related illness and evaluate existing severity scores.**Methods:** We conducted a Tiriti-centred retrospective cohort study in adults (age ≥16 years with COVID-19, hospitalised at 11 hospitals from 1 January – 1 May 2022, including all Māori and Pacific, and every second non-Māori, non-Pacific (NMNP) patient to achieve sufficient analytic power for each ethnic grouping. We conducted chart review and linked to national datasets. We evaluated attribution of admission to COVID-19, collected clinical data; and assessed the accuracy of severity scores to predict death in hospital or within 28 days.**Results:** Of 4,459 admissions, 2,375 (53%) were due to COVID-19. Of 2,319 patients included, 25% identified as Māori, 39% Pacific, and 37% NMNP. Some 408 (18%) had pulmonary radiographic infiltrates, 599 (26%) received oxygen, and 146 (6%) died. C-statistics of severity scores were: 4C mortality, Maori 0.83 (95% CI 0.77, 0.89), Pacific 0.87 (95% CI 0.83, 0.91), NMNP 0.90 (0.87, 0.93); CURB-65 Māori 0.83 (95% CI 0.77, 0.89), Pacific 0.87 (95% CI 0.84, 0.91), NMNP 0.87 (0.83, 0.91); and modified PRIEST, Maori 0.85 (95% CI 0.80, 0.90), Pacific 0.81 (95% CI 0.76, 0.86), NMNP 0.83 (95% CI 0.79, 0.88).**Conclusion:** Half of COVID-19 associated hospitalisations were attributed to COVID-19. Pneumonitis was uncommon and mortality was 6%. Severity scores accurately predict risk for Māori, Pacific and NMNP, but confidence intervals are broadest for Māori.**Grant Support:** Manatū Hauora | New Zealand Ministry of Health |