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Title

*Exploiting administrative claims data through modelling and creativity:
Epidemiology of Post Covid Syndrome*

Priority 1 (Research Category)

COVID-19

Presenters

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Abstract

Context: The lack of both established diagnostic criteria and an assigned ICD 9 diagnostic code results in an inadequate understanding of the prevalence, predictors, and outcomes of Post Covid Condition (PCC). Health system planning and service delivery is hampered by the lack of this information and clinicians lacked information on risk factors and outcomes of PCC. Objective: To determine the population prevalence of PCC Study design: Retrospective cohort study Setting: Canadian provincial research population-based administrative data repository (1,467,275 people). Outcome measures: ICD 9 diagnostic codes, medications and patterns of care suggestive of possible PCC. Results: We identified 66,365 individuals with confirmed positive PCR tests (1,407,670 tests, 122, 862 positive tests) Starting at 90 days after the positive test we included 3770 people with reported incident (3 year washout period) over 100 ambulatory care ICD 9 diagnostic codes consistent with possible PCC. An additional 7619 people were classified as possible PCC based on new medication prescriptions and 1111 were included based on both a diagnosis and a medication prescription. After analysis of patterns of primary care use compared to both pre-COVID usage and to usage of propensity score matched controls, an additional 5499 people were added to the possible PCC cohort. The combined PCC cohort represents a cumulative prevalence of 27.1% of COVID PCR positive individuals may have PCC. Conclusions: The lack of definitive diagnostic criteria or even a universally accepted definition of PCC challenges health system organisers and clinicians. Knowing the prevalence of the condition provides guidance for both patient care and system planning. The range of estimates from the literature varies significantly. Our analyses need to be viewed in the context of finding the balance between sensitivity and specificity in the analyses. In addition, these analyses include other limitations. Chief amongst these is the nonspecific nature of the diagnoses and medications prescribed included, as indicators of potential PCC. This is in part due to the use of ICD 9 rather than ICD 10 codes in ambulatory care in Manitoba. There is also no local dedicated PCC clinic to establish a “gold standard” through clinically diagnosed PCC patients. The approach is however an example of creative use of administrative claims data.