

Fit notes in primary care post-COVID

Date: December 2021

Rationale

Fit notes (sometimes called “sick notes”) are issued by GPs in the UK where a person needs to demonstrate to their employer that they are unable to work for health reasons for more than 7 days. Given the large number of patients living after being diagnosed with COVID-19, it is important to know the degree to which recovering from COVID affects people’s ability to work. Coding of fit notes by GPs should provide a window on the scale of the continuing public health and economic burden for those recovering from COVID-19. This in turn can assist policy makers in prioritising resources for COVID recovery services.

In parallel with this, measuring the diagnoses that are associated with fit note coding would provide important insights into the types of conditions that are causing substantial continued problems for people recovering from COVID-19. This could provide important information for the continued care of these patients.

Objectives

- To what extent are fit notes given to patients with COVID, and how does this compare with the general population and an active comparator.
- What type of patients get a fit note, according to demographic, clinical and organisational factors?
- What is the typical duration of fit notes in COVID patients, and how does this compare with the general population and an active comparator?
- What diagnoses are most commonly coded alongside recording of a fit note?

Cohorts

We will identify COVID-19 patients through 3 routes:

- Those testing positive for SARS-CoV-2
- Those with a “probable” diagnostic code in primary care
- Those hospitalised with a diagnostic code for COVID-19

We will also identify 3 comparator cohorts:

- A matched general population (5 matches per case) from 2019, matched on:
 - Age (+- 1 year)
 - Sex
 - Geographic region (STP)
- A matched general population from 2020, matched as above.
- A population hospitalised with pneumonia in 2019, for comparison with hospitalised COVID patients.

Other measured variables

Demographics

Age, sex, ethnicity, IMD.

Clinical

COVID related - the cohort can be divided according to measures of COVID severity:

- SGSS test has a “symptomatic” flag
- Primary care diagnosis with/without a positive test
- Hospitalised/non-hospitalised
- Within hospitalised: admitted to critical care/not admitted to critical care

Non COVID related:

- Electronic frailty index
- A&E admission in the 3 months before index date
- Sick note within the year prior to COVID-19 (ending a month before COVID index date to ensure it's unrelated to COVID)

Organisational

Practice/CCG/STP/regional variation.

Outcomes

Rate of fit note coding

The rate of first fit note coding over the patient follow up time.

Duration of fit notes

Total duration of fit notes during the study period, taking account of repeated fit note recording in individual patients. Where fit notes are issued within 7 days of the previous one expiring, they will be counted as a single, longer duration period of sickness.

Associated diagnostic codes

The codes that are either temporally associated with a fit note (+-3 days from a fit note code), or explicitly linked to the fit note by the GP (TBC whether this is technically doable).

Analysis

The study period will run from 1st February 2020 up to the most recent data of full data availability for the COVID cohort. For the comparator cohorts, the dates will be the same but a year earlier. Follow-up time will begin on the date of the first evidence of COVID (either test, primary care or hospital, and end on the earliest of: study end date, transferring out of the registered GP practice, or death. In the comparator cohorts, follow-up time will be also censored on the date of any COVID diagnosis. SENSITIVITY ANALYSIS: do without censoring at COVID diagnosis.

Rate of fit note coding and factors associated with fit note coding

To use time to event analysis to report absolute rates of fit note coding overall and amongst the different cohorts of people. Cox regression will be used to model comparative rates between the COVID cohort(s) and the comparator populations, as well as amongst the “other measured variables” described above. Hazard ratios will be adjusted for age and sex initially. More complete adjustment to be discussed. Analysis will be stratified by time period, with rates reported for 0-4, 4-8, 8-12, 12-16, 16-20 and 20+ weeks.

Duration of fit notes

Descriptive counts of total fit note duration for each patient. This will include mean and confidence interval estimates (or if the distribution is skewed, median and IQR) overall for each of the cohorts, and by the various demographic, clinical and organisational variables listed above.

Associated diagnostic codes

This analysis will be descriptive initially, describing the most commonly coded diagnoses, in terms of exact codes (e.g. top 10) and also categorised into higher levels, e.g. code chapters. Later to consider symptom clustering in line with the other symptom studies.