IPCRG practice driven answers on COVID-19 and respiratory questions

What do we know about the effect of long COVID and its impact on asthma or COPD patients?

What the research says

Estimated prevalence of long-COVID (symptoms 12+ weeks following acute COVID-19 illness) vary considerably, ranging from <5% to >80% of patients following acute COVID-19 illness (Cabrera Martimbianco et al 2021). In a UK-based longitudinal study of 6899 adults who self-reported acute COVID-19 illness, long-COVID (symptoms beyond 12 weeks) increased with age from ~7.8% (mean age 28 years) to ~17% (mean age 58 years) (Thompson et al 2021). Among those hospitalised with COVID-19, between 50% and 89% have been reported to have at least one enduring symptom after 2 months after discharge (NIHR 2021). These estimates are based on the situation when the predominant SARS-CoV-2 variant was Delta and the picture may change once data for periods when the Omicron variant data was dominant.

Symptoms associated with long-COVID may impair an individual's ability to function in their daily lives including performing activities of daily living and work. The most common symptoms include: fatigue, dyspnoea, cardiac abnormalities, cognitive impairment, sleep disturbances, symptoms of post-traumatic stress disorder, concentration problems, muscle pain and headache (Crook et al 2021).

A higher risk for long-COVID has been reported for those with asthma (as much as 32% increased risk reported in one study; Thompson et al 2021).
In a UK-based survey of 4500 individuals with asthma 10.5% reported COVID-19 illness. Of these, 56% reported having long-COVID and were more likely than those without long-COVID to describe their breathing as worse/much worse, reported increased inhaler use and worse or much worse asthma management (Philip et al 2022).

In a UK-based primary care population, COPD, bronchitis and emphysema was not associated with an increased risk for long-COVID (defined as symptoms ≥4 weeks) (OR 1.53; 95% CI [0.84–2.72]; Jones et al 2021). In a prospective single-center study COPD was associated with symptom persistence at 12 months following discharge from hospital for acute COVID-19 illness (Fumagalli et al 2021). No systematic data on the risk factors and symptom profile of long-COVID among patients with COPD are yet available.

What this means for your clinical practice

- Continue to follow-up with patients once they recover from acute COVID-19 illness of any severity, with particular vigilance for symptoms persisting beyond 12 weeks from onset of the acute illness
- For patients with asthma or COPD, review regularly

Refer to existing Sentinel responses on long-COVID:

- How do we define long-COVID-19 disease/post-COVID syndrome?
- • What are the risk factors for long-COVID-19 disease/post-COVID syndrome (PCS)?
- • After serious pathology has been excluded, how do we manage common post-COVID symptoms?
- • How do we manage post-COVID respiratory symptoms?

Useful links and supporting references

Cabrera Martimbianco AL, et al. Frequency, signs and symptoms, and criteria adopted for long-COVID-19: A systematic review. Int J Clin Pract 2021;75:e14357.

Crook H, et al. Long covid – mechanisms, risk factors, and management. BMJ 2021;374:n1648.

Fumagalli C, et al. Factors associated with persistence of symptoms 1 year after COVID019: A longitudinal, prospective phone-based interview follow-up cohort study. Eur J Intern Med 2021; S0953-6205(21)00405-2.

Jones R, et al. Risk predictors and symptom features of long COVID within a broad primary care patient population including both tested and untested patients. Prag Obs Res 2021;12:93–104.

NIHR. Living with COVID19 – Second review. March 2021. Available at: https://evidence.nihr.ac.uk/themedreview/living-with-covid19-second-review/#How. Accessed February 2022.

Perez Gonzalez A, et al. Long COVID in hospitalized and non-hospitalized patients in a large cohort in Northwest Spain, a prospective cohort study. 2021. Preprint not yet peer reviewed. Available at: https://www.medrxiv.org/content/10.1101/2021.08.05.21261634v1. Accessed January 2022.

Philip KEJ, et al. Impact of COVID-19 on people with asthma : A mixed methods analysis from a UK wide survey. BMJ Open Respir Res 2022;9:e001056. Available at: https://bmjopenrespres.bmj.com/content/9/1/e001056/. Accessed January 2022

Thompson EJ, et al. Risk factors for long COVID: analyses of 10 longitudinal studies and electronic health records in the UK. 2021. Pre-print (not yet per-reviewed). Available at: https://www.medrxiv.org/content/10.1101/2021.06.24.21259277v2. Accessed January 2022

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