

Thank you for participating in the VIP Study!

We have now completed the patient visit schedule. The VIP study was conducted at 6 research centres in the UK, Imperial College, London North West, Barts Health, Cambridge, Edinburgh (NHS Lothian) and Exeter (Royal Devon and Exeter Hospital). We **consented and received blood samples from nearly 600** participants at the height of the pandemic. The study has been a huge success, helping to inform patients, clinicians and policy makers about the impact of immunosuppressive medications on COVID-19 vaccination. The second publication has just been released in the journal **The Lancet**

Gastroenterology and Hepatology

https://www.vipstudy.uk/files/ugd/56b269_2e990eb293e445fab529a993a351bad4.pdf

What is the VIP study about?

- VIP is the first study to investigate antibody responses to COVID-19 (SARS-CoV-2) vaccination, both with mRNA (e.g. Pfizer and Moderna) and Adenovirus vector (e.g. Oxford/Astra-Zeneca) vaccines, in patients receiving the full breadth of immunosuppressive therapy types used in IBD.
- COVID-19 vaccination generates two types of immune responses which protect us from subsequent infection: antibody (humoral) and T cell (cellular) responses. The VIP study now has results for both antibody and T cell responses after a third dose of COVID-19 vaccine.

VIP study Groups

VIP analysed vaccination responses in seven groups (see below) of immunosuppressed patients with IBD compared to healthy people.



- | | |
|-----------------|---------------|
| ✓ azathioprine; | ✓ ustekinumab |
| ✓ infliximab | ✓ tofacitinib |
| and | and |
| azathioprine; | ✓ healthy |
| ✓ infliximab | control |
| only | group. |
| ✓ vedolizumab | |

Key findings

- All groups of immunosuppressed patients with IBD had a significant boost in vaccine-induced antibody levels after a third dose of COVID-19 vaccine.
- COVID -19 antibody response after three vaccine doses is lower in patients treated with tofacitinib and infliximab compared to healthy controls (people who don't have IBD and aren't on immunosuppressive therapy). These results mirror the findings after two doses of vaccine.
- No significant reduction in antibodies was seen in vedolizumab, ustekinumab or thiopurine-treated patients compared to healthy controls.
- Prior COVID-19 infection and younger age were associated with higher antibody levels.
- T cell responses were similar in all groups, except for recipients of tofacitinib without evidence of previous infection, where T cell responses were significantly reduced relative to healthy controls.

THE LANCET

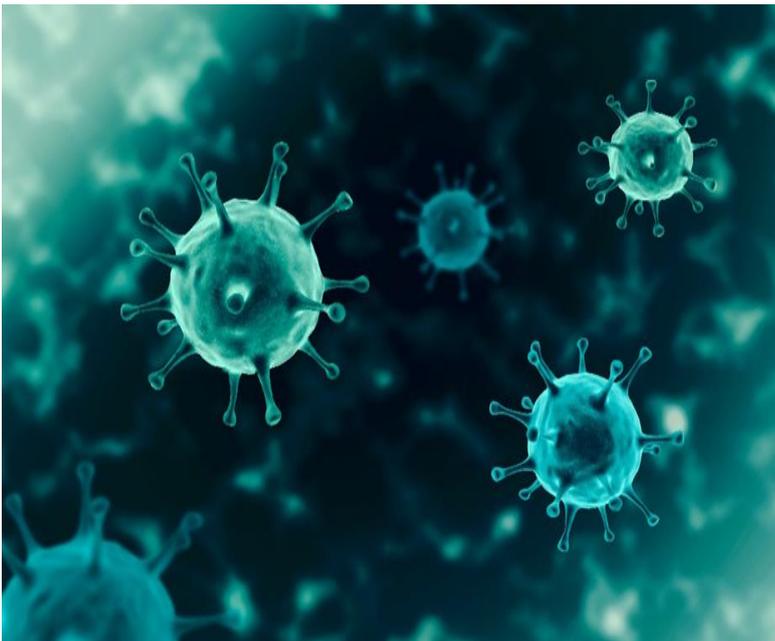
Gastroenterology & Hepatology

Available online 9 September 2022



What are the implications of the latest findings?

These results represent good news for immunosuppressed patients with IBD because a third dose of COVID-19 vaccine induced a boost in antibody levels in all treatment groups. However, responses were reduced in patients taking infliximab, infliximab/thiopurine combination and tofacitinib. Tofacitinib was also associated with reduced T cell responses. These findings support continued prioritisation of immunosuppressed groups for further booster dosing, particularly those patients taking anti-TNF (e.g. infliximab) and Janus Kinase (JAK) inhibitors (e.g. tofacitinib).



VIP study next steps

WE HAVE ONE MORE REQUEST:

We are making an application so that we can undertake a patient follow-up questionnaire. This questionnaire will collect information about further booster vaccinations, COVID-19 infections and your IBD treatment. You will be invited to participate by email initially. If you give consent, you will be sent an electronic patient questionnaire via the REDCAP database.

USEFUL LINKS

BSG <https://www.bsg.org.uk/covid-19-advice/british-society-of-gastroenterology-inflammatory-bowel-disease-section-and-ibd-clinical-research-group-position-statement-on-sars-cov2-vaccination/>

CROHN'S AND COLITIS UK: <https://www.crohnsandcolitis.org.uk>

NEED TO CONTACT US PLEASE EMAIL rde-tr.VIPSTUDY@NHS.NET OR FOLLOW US ON TWITTER @VIPSTUDY