

BTA/SfE statement regarding issues specific to thyroid dysfunction during the COVID -19 pandemic

The worldwide spread of the novel coronavirus, COVID-19, has recently been declared a pandemic. This presents many challenges to those of us working in healthcare, and will especially impact individuals with some chronic conditions.

Members of the British Thyroid Association (BTA) and the Society for Endocrinology (SfE) have received numerous queries regarding how this pandemic may affect management of patients with thyroid disease, so we have formulated responses to these questions in order to assist our endocrine and primary care colleagues during this extraordinary time. We acknowledge that the situation is changing rapidly and also that local practice may differ depending on available resources and infrastructure.

The [British Thyroid Foundation \(BTF\)](#) and Thyroid Cancer Forum-UK (TCF-UK) have already provided very helpful information for doctors and patients, both of which we endorse. The BTA wishes to reinforce some of this advice and address additional issues specific to thyroid disease.

Are individuals with autoimmune thyroid disease at increased risk of COVID-19 infection?

COVID-19 is a novel virus, so we have no information on how it affects individuals with thyroid disease, however thyroid disease (TD) is not known to be associated with increased risk of viral infections in general, nor is there an association between TD and severity of viral infection.

Does control of thyroid disease affect infection risk?

There is no evidence that those with poorly controlled thyroid disease are more likely to contract viral infections in general. However, it is possible that patients with uncontrolled thyroid disease (especially thyrotoxicosis) may be at higher risk of complications (for example thyroid storm) from any infection. We strongly recommend that patients with thyroid disease continue taking their thyroid medication(s) to reduce this risk.

Are individuals taking antithyroid drugs at higher risk of infection?

Antithyroid drugs (ATDs) are not known to increase the risk of infection, unless they result in neutropenia, which is very rare. We do not consider patients on ATDs to be at higher risk of contracting COVID-19 or of developing more severe disease in the event of contracting the infection. A patient infected with COVID-19 can continue ATDs unless neutropenia (neutrophil count of $<1.0 \times 10^9/L$) is present. Of note, lymphopenia seems common with COVID-19 infection and is not an indication to stop ATDs.

How should we advise patients who are at risk of neutropenia due to ATD therapy?

Patients taking ATDs are at risk of developing neutropenia, although this side effect is rare. Symptoms of neutropenia (sore throat, mouth ulceration, fever, flu-like illness) may overlap with symptoms of COVID-19 infection (fever, new continuous cough, flu-like illness). It will be difficult, if not impossible, for patients and physicians to distinguish between these two diagnoses clinically. At present, the UK government has recommended *against* testing for COVID-19 infection in patients with only mild symptoms.

We recommend that patients on antithyroid drugs (ATDs) with any symptoms suggestive of neutropenia should STOP the ATD and have an urgent full blood count (FBC) performed to measure white cell count/differential. At their doctor's discretion, testing for COVID-19 may also be performed. As per standard practice, we recommend all patients starting ATDs be given written information with [instructions](#) on what to do if they develop symptoms suggestive of neutropenia.

Should healthcare resources be severely limited over the coming weeks/months, it may not be possible to check a FBC at the onset of symptoms suggestive of neutropenia; in this extraordinary situation, we suggest that patients stop the ATD and restart one week later if symptoms have resolved. If symptoms worsen during the period off ATDs or recur after recommencing the drug, the patient should seek urgent medical attention; in such situations performing a FBC is essential.

How should we advise patients on steroid treatment for thyroid eye disease?

Some patients with thyroid eye disease will be on steroid therapy at immunosuppressive dosage or other immunosuppressive agents such as mycophenolate. These patients are included in the group of people who are extremely vulnerable and at very high risk of severe illness from coronavirus (COVID-19) and should be advised to self-isolate/shield for at least 12 weeks as per the [advice](#) from Public Health England.

How should blood testing be performed for individuals on treatment for thyrotoxicosis?

Where possible, management of thyrotoxicosis should continue to be informed by results of thyroid function tests. Currently, or in the future, it may be difficult or impossible to perform such biochemical monitoring; in this exceptional circumstance, we suggest that a block & replace regimen for management of thyrotoxicosis is considered. A suggested regimen is outlined in '[Management of thyrotoxicosis during COVID-19.](#)'

Are there alternatives to face -to-face consultations for thyroid disease?

We support the cancellation of routine appointments for individuals with thyroid disease to help limit the spread of COVID-19 to healthcare workers and other patients. Alternatively, appointments can be converted to telephone or video consultation, assuming ongoing availability of healthcare staff to conduct these.

Is it safe to defer definitive treatment for thyrotoxicosis?

The NHS has instructed hospitals to postpone all non-urgent surgery, so it is unlikely that those awaiting thyroidectomy for benign disease will have thyroid surgery during the outbreak. In addition, it is highly likely that administration of radioiodine for hyperthyroidism will need to be deferred; most Trusts have already cancelled planned, elective radioiodine treatments. This is based on prioritisation of delivery of emergency care as well as anticipated difficulties with patients being unable to adhere to radiation protection guidance during the COVID-19 pandemic. We would like to reassure patients and physicians that, in most cases, we agree that these measures are safe and acceptable. We have formulated a [suggested letter](#), which can be sent to patients whose radioiodine treatment has been postponed/cancelled.

On a case-by-case basis, uncontrolled thyrotoxicosis may require urgent surgery. It is also important to identify those patients who have recently undergone radioiodine treatment for hyperthyroidism, with a low threshold for commencing thyroxine therapy if hypothyroid symptoms develop; and to monitor thyroid function in those who have not been started on levothyroxine if possible.

Are patients who have had radioiodine therapy or thyroid surgery at higher risk of coronavirus infection?

There is no evidence that patients who have recently had radioiodine or thyroid surgery for benign thyroid disease are at increased risk of general viral (and therefore COVID-19) infection.

Are there any considerations regarding supply of medication?

During the outbreak, stockpiling of any medication should be avoided, in order to ensure sufficient supply for all in the community. We recommend that patients have adequate supply of medication and also that they adhere to social distancing guidelines when ordering and collecting medication. Requests for repeat prescriptions should be made early as we anticipate primary care will be under substantial pressure.

Useful links and resources:

1. The latest NHS advice to patients regarding COVID-19 can be found [here](#).
2. Social distancing advice from the government can be found [here](#).
3. BTF information for patients regarding COVID-19 can be found [here](#).
4. Information for clinicians regarding COVID-19 can be found [here](#).
5. Link to BTF leaflet on antithyroid drugs can be found [here](#).
6. SfE resources page can be found [here](#).