UK PIN
Advancing Care in Primary Immunodeficiency

24th of March 2020

Advice for healthcare professionals looking after patients with Immunodeficiency regarding COVID-19

The purpose of this document is to provide guidance for clinicians regarding the risk stratification of patients with primary immunodeficiencies (all ages and types), secondary antibody deficiency (adults) and patients who have previously undergone stem cell transplant for primary immunodeficiency (all ages), to complement the advice already issued by the government. In addition this document provides advice on the provision of immunoglobulin replacement therapy during the COVID-19 outbreak.

By specialist consensus view, patients have been classified into 3 risk groups (see Table 1).

1. Extremely vulnerable group
2. Moderate risk group
3. Group with risk equivalent to or only marginally higher than that of the general population

Patients in group 1 should follow the advice issued by the government for the most vulnerable who need to be shielded. For details please follow the link: https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19

Groups 2 and 3 need to follow the recommendations and restrictions for everyone (updated 23/3/2020). For details please follow the link: https://www.gov.uk/coronavirus. If patients in groups 2 have additional concerns or other high risk features, the advice for them should be changed to the shielding category – advice detailed for group 1 patients.

Patients with hereditary angioedema (all types) are immunocompetent and not thought to have any increased risk of harm from COVID-19 compared to of the general population.

Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment[1].

34 Red Lion Square, London, WC1R 4SG
Tel: +44 (0) 20 3019 5925
info@ukpin.org.uk

Registered charity 1164466 and registered in England and Wales as company 9273983

Immunoglobulin replacement therapy

We recommend that Immunology services should still support the ongoing provision of immunoglobulin replacement therapy for patients with immunodeficiency unless they are advised by their trust or national body that this is no longer possible. Immunology services may want to consider individual discussion with patients, particularly those in the risk group 1, about the risks and benefits of attending for immunoglobulin replacement therapy.

Day unit attendance may be minimised in the following ways:

- starting antibiotic prophylaxis (to replace immunoglobulin therapy),
- changes to immunoglobulin dosing (by increasing interval), or
- consideration of home therapy.

It is emphasised that services may not be able to facilitate these options due to significant pressures and that individual patient assessment will be required.

Regarding the home therapy; if patients are switching products and if products are outside of current allocation volumes please ensure discussion with commercial medicines unit (CMU).

The advice given here is subject to change due to rapidly evolving situation surrounding COVID-19 outbreak. For general updates related to COVID-19 epidemic please visit: https://www.gov.uk/coronavirus

34 Red Lion Square, London, WC1R 4SG
Tel: +44 (0) 20 3019 5925
info@ukpin.org.uk

Registered charity 1164466 and registered in England and Wales as company 9273983

Table 1 Risk stratification of patients with PID and secondary antibody deficiencies

	Group 1	Group 2	Group 3
Primary immunodeficiency	• Combined immunodeficiency • CD4 lymphopenia (CD4 count <200 x10^6/L) in the context of any other immunodeficiency • Any primary immunodeficiency (requiring treatment with prophylactic antibiotics or immunoglobulin) with a co-morbidity**** • Any primary immunodeficiency (requiring treatment with prophylactic antibiotics or immunoglobulin) and also taking corticosteroid dose of ≥5mg prednisolone (or equivalent) per day for more than 4 weeks, immunosuppressive medication*, biologics/monoclonals** or small molecule immunosuppressants*** • Disorders associated with HLH	• CVID not meeting criteria in the Group 1 • XLA not meeting criteria in the Group 1 • Chronic Granulomatous Disorder not meeting criteria in the Group 1 • Other primary immunodeficiency requiring immunoglobulin treatment or prophylactic antibiotics not meeting criteria in the Group 1. • Complement pathway deficiencies other then MBL	• Other primary antibody deficiency with normal lungs not requiring immunoglobulin treatment or prophylactic antibiotics • MBL deficiency • Isolated IgA deficiency
Secondary antibody deficiency	• Requiring treatment with prophylactic antibiotics or immunoglobulin and with a comorbidity**** • Requiring treatment with prophylactic antibiotics or immunoglobulin and also taking corticosteroid dose of ≥5mg prednisolone (or equivalent) per day for more than 4 weeks, immunosuppressive medication*, biologics/monoclonals** or small molecule immunosuppressants***	• Secondary antibody deficiency not meeting criteria in Group 1.	

34 Red Lion Square, London, WC1R 4SG
Tel: +44 (0) 20 3019 5925
info@ukpin.org.uk

Post bone marrow transplant for PID	Patients who are currently: • less than 1 year following transplant; • are still taking immune suppressing drugs; • are on immunoglobulin replacement therapy; • have significant lung disease; or have ongoing chronic graft versus host disease		If ***more than 1 year after*** allogeneic BMT for immunodeficiency ***and <u>not</u>***: • on any regular immune suppressive drugs (eg, ciclosporin, MMF, tacrolimus); or • on regular immunoglobulin replacement therapy (iv or subcut); or • have significant lung damage (bronchiectasis); or • have ongoing chronic graft versus host disease (GVHD)

* Immunosuppressive medications include: Azathioprine, Leflunomide, methotrexate, Mycophenolate (mycophenolate mofetil or mycophenolic acid), ciclosporin, cyclophosphamide, tacrolimus, sirolimus. It does **NOT** include Hydroxychloroquine or Sulphasalazine either alone or in combination.

** Biologic/monocolonal includes – Rituximab within last 12 months; all anti-TNF drugs (etanercept, adalimumab, infliximab, golimumab, certolizumab and biosimilar variants of all of these); Tociluzimab; Abatacept; Belimumab; Anakinra; Seukinumab; Ixekizumab; Ustekinumab; Sarilumumab; canakinumab

*** Small molecules include all JAK inhibitors – baracitinib, tofacitinib etc

**** Co-morbidity includes age >70, Diabetes Mellitus, any significant pre-existing lung disease, renal impairment, any history of Ischaemic Heart Disease or uncontrolled hypertension, chronic liver disease

REFERENCES

1. WHO https://www.who.int/health-topics/coronavirus#tab=tab_1
2. https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19

Contributors: David Lowe, Tomaz Garcez, Grant Hayman, Patrick Young, Siraj Misbah (Chair of clinical immunology and allergy clinical reference group), Sarah Denman, Matthew Buckland, Siobhan Burns, Alex Richter, Austen Worth, Claire Stockdale and Sinisa Savic (Chair of UKPIN)

34 Red Lion Square, London, WC1R 4SG
Tel: +44 (0) 20 3019 5925
info@ukpin.org.uk