Publications approval reference: 001559

Specialty guides for patient management during the coronavirus pandemic

Clinical guide for the management of rheumatology patients during the coronavirus pandemic

November 2020

"…….and there are no more surgeons, urologists, orthopedists, we are only doctors who suddenly become part of a single team to face this tsunami that has overwhelmed us".

Dr Daniele Macchine, Bergamo, Italy, 9 March 2020

As doctors we all have general responsibilities in relation to coronavirus and for these we should seek and act on national and local guidelines. We also have a specific responsibility to ensure that an essential core rheumatology service continues with the minimum burden on the NHS. We must engage with those planning our local response. We may also need to work outside of our specific areas of training and expertise, and the General Medical Council has already indicated its support for this in the exceptional circumstances we may face.

Rheumatology may not seem to be in the frontline with coronavirus, but we do have a key role to play and this must be planned. We have a high percentage of patients who are vulnerable and at increased risk of coronavirus because of immunosuppression and their underlying disease and related comorbidities. We should seek the best local solutions to continue the proper management of our patients while protecting resources for the response to coronavirus

In addition, we need to consider that the facility for patients may be compromised due to a combination of factors including staff sickness, supply chain shortages and the redeployment of staff.

Specialty patients to consider

- **Obligatory inpatients:** Continue to require admission and management, for example we must expedite treatment to avoid delay and minimise length of stay.
- **At-risk patients.** Patients with reduced immune responses.
- **Escalation matrix.** Overall chart for consideration of services.

When planning your local response, please consider the following:

- **A consultant must be designated as 'lead consultant'.** This duty can be for 1 day, a few days or even 5 days in small units. This is an essential role during crisis management. It cannot be performed by the consultant 'on-call'. The lead consultant must be free of clinical duties and the role involves coordination of the whole service from emergency department (ED) to scheduling of clinical work and liaison with other specialties and managers.
- It can be very stressful during a crisis. Support each other and share the workload.
  Do not expect the clinical director to do all the coordination!

- **A leadership team should support the lead and include relevant members of the multidisciplinary team (MDT).**
- Establish a daily situation report (sitrep) and dashboard with critical data to share across the workforce. That should include patient flows, workforce issues, stock levels and other key messages (for example state of coronavirus response, personal protective equipment [PPE] requirements).
- Make contingency plans for supply chain issues.

At-risk patients

The threat to those with reduced immune responses from being infected with coronavirus may require the NHS to do 3 things:

1. protect vulnerable individuals from the risk of infection
2. reduce the risk of transmission between people attending clinical facilities
3. free up capacity for inpatient and high-dependency care.

The vulnerable population (see Tables 1 and 2) will include rheumatology patients who are receiving conventional disease-modifying drugs (cDMARDs), JAK inhibitors and biologics. Many patients have multisystem disease including heart, lung

(particularly interstitial lung disease and pulmonary arterial hypertension) and/or renal involvement which puts them at an additional risk. Some have kyphoscoliosis which leads to respiratory compromise and potential problems when they develop lower respiratory tract infections. Some patients also have other comorbidities which also makes them more vulnerable e.g. diabetes mellitus, any pre-existing lung disease, renal impairment and any history of ischaemic heart disease or hypertension. Patients over 70 are also at an increased risk. Rheumatology patients cover the whole age spectrum, but we now have a significant number of patients on these drugs who are 80+, which probably adds a further level of vulnerability when infected with coronavirus.

The Chief Medical Officer asked the British Society for Rheumatologists in conjunction with the Royal College of Physicians to identify rheumatology patients (adults and children) believed to be extremely clinically vulnerable/very high-risk patients who should be shielded. These criteria are summarised in table 3 (BSR guidance published 22 March 2020)*,* **which are the gold standard that all adult and paediatric units should follow to ensure a consistent approach.** It is difficult to identify these patients, but resources include day case unit patient lists, patients who fall under specialised commissioning can be identified from the patient-identifiable data submitted to quality dashboards, patients attending DMARD monitoring clinics and/or patients receiving drugs via homecare services**. Each unit has developed their own pragmatic system to identify this shielded cohort, but they should ensure that they ratify the identified patients using the BSR guidance as the gold standard.**

Action will be required from outpatient clinics to rheumatology day case units (where IV biologics and chemotherapy [IV cyclophosphamide] are administered) to pharmacies, including homecare delivery services. A complete list of units delivering biologics and chemotherapy should be available to the incident response team and this should include rheumatology day case units. Units will be notified in advance that in the event of escalation, they will be required to draw up and submit a patient list.

All rheumatology services will have a role to play in reducing risk of transmission between people attending services and in freeing up capacity. Table 4 sets out

actions to be taken. In the event of a high prevalence of infection, all low, medium and high prevalence actions should be put into place. As well as the specific actions below, rheumatology services should adopt broader NHS guidance, including providing patients with information on coronavirus, social distancing, self-isolating and shielding, signposting to support of all kinds including information provided by charities such as Versus Arthritis.

Table 1: List of at-risk patients; that is, with a potential risk above the general population

Name of disease (including abbreviations and previous nomenclature)	Risk grading: very high (VH), high (H) or increased (I)	Additional comments
Any autoimmune connective tissue disease (CTD) or vasculitis – general comment	H/VH	Mechanical ventilation is especially challenging and many of the patients with severe CTD and vasculitis are poor ITU candidates, so the rheumatology service needs to have strong prevention strategy
Systemic lupus erythematosus (SLE)	H/VH	
Systemic sclerosis (SSc)/scleroderma	H/VH	Specific risk of lung (interstitial lung disease [ILD]), heart and pulmonary hypertension [PH] complications meaning that undercurrent severe infection much more likely to be fatal in SSc and other SSc-like CTDs
Myositis, polymyositis, dermatomyositis, antisynthetase syndrome	H/VH	If disease active – increased risk due to respiratory muscle weakness as well as coexisting interstitial lung disease which is common in these patients and other overlap CTDs
Primary Sjögren's syndrome	I/H	
Overlap connective tissue disease (CTD)	H	
Relapsing polychondritis	H/VH	
ANCA-associated vasculitis, granulomatosis with polyangiitis (GPA), Wegener's, eosinophilic granulomatosis with polyangiitis (EGPA)/Churg Strauss syndrome, microscopic polyangiitis (MPA)	H/VH	
Aortitis	H/VH	
Takayasu/Takayasu's arteritis	H/VH	
Giant cell arteritis (GCA)/temporal arteritis	H/VH	
Behcet's disease	H/VH	Behçet's per se may increase the risk for coronavirus, but additional features such as internal organ involvement, comorbidities and/or

		immunosuppressive agents are required for formal shielding
Polyarteritis nodosa/PAN	H/VH	
IgA vasculitis	H	
Vasculitis (any)	H/VH	
Cryoglobulinaemia	H/VH	
Hypocomplementaemic urticarial vasculitis	H/VH	
Cogan's syndrome	H/VH	
Adult-onset Still's disease (AOSD)	H	
Autoinflammatory syndromes	H	
IgG4-related disease (IgG4 RD)	H/VH	
Rheumatoid arthritis (RA)	I/HVH	Very high in patients with RA-ILD and/or RA-PAH
Psoriatic arthritis (PsA)	I/HI	
Ankylosing spondylitis (AS)	I/H	
Juvenile idiopathic arthritis (JIA)	I/H	
Polymyalgia rheumatica (PMR)	I	
Severe osteogenesis (previously types III/IV) imperfecta	H/VH	As a result of potentially restricted mobility and chest wall shape/capacity
Fibrodyplasia ossificans progressive	H/VH	
Severe kyphosis/scoliosis from rare bone diseases, for example hypophosphatasia, Type 1 osteogenesis imperfecta (OI), Hajdu Cheney	H/VH	
CTD-ILD, RA-ILD, CTD-related ILD, CTD-related interstitial lung disease	H/VH	
CTD-PH, RA-PH, CTD-related pulmonary hypertension, RA-related pulmonary hypertension	H/VH	

Table 2: List of immunosuppressants that could put patients at an increased risk

Immunosuppressant or indicative medications
NB Use of immunosuppressants (conventional or biological) is probably more relevant in defining risk rather than the underlying individual disease. **Many patients are on more than 1 of these drugs, thus increasing their overall risk/vulnerability.** **All of the drugs listed below would put an individual at an increased risk. The presence of additional risk factors would put them at a high risk or very high risk. These risk factors include: high doses; use of multiple immunosuppressants; active disease; presence of other comorbidities, such as interstitial lung disease/pulmonary fibrosis, pulmonary hypertension/pulmonary arterial hypertension, glomerulonephritis/renal impairment (any cause), neutropaenia, liver disease, diabetes mellitus, ischaemic heart disease, other underlying lung disease (such as asthma, chronic obstructive pulmonary disease [COPD]), pregnancy and older age.** **Some patients with very active disease, for example newly diagnosed and on IV cyclophosphamide may be at very high risk.** **The following examples illustrate the influence of medication and comorbidity on risk stratification:** • female aged 35, well-controlled RA, no comorbidity on sulfasalazine – no increased risk; advise continued social distancing • female aged 35, RA, no comorbidity on methotrexate and etanercept – high risk; advise to self- isolate or maintain social distance at their discretion • female aged 60, RA, renal impairment on methotrexate and etanercept – very high risk; advise to shield. **Patients must not suddenly stop prednisolone.** **Patients can continue hydroxychloroquine and sulfasalazine if they are infected with coronavirus.** **If a patient is infected with coronavirus, they should temporarily stop their conventional DMARD and biological therapy. They should contact their rheumatology service for further advice about when to restart treatment.**
Corticosteroids: prednisolone 5mg per day or more for more than 4 weeks with 1 other immunosuppressant (see below) VH, prednisolone 20mg (0.5 mg/kg) or more - or equivalent - for more than 4 weeks (VH), other monotherapy doses I/H
Methotrexate (H)
Leflunomide (H)

Immunosuppressant or indicative medications
Azathioprine (H)
Mycophenolate mofetil (H/VH)
Myfortic (H/VH)
Cyclophosphamide IV or oral (VH)
Ciclosporin (H)
Tacrolimus (H/VH)
NB the following biologics may or may not be on a primary care record/database as they are prescribed in secondary care but can be searched for on Hospital Episode Statistics if given in a day case unit, for example X92.1 includes rituximab, tocilizumab and infliximab. Drugs administered subcutaneously, for example adalimumab and etanercept, are usually supplied by homecare companies. **The receipt of any biologic probably puts the patient in the high-risk category, but as already highlighted above it is additional other factors that put patients at very high risk/make them extremely vulnerable/in the shielding cohort.**
Rituximab (Mabthera, Truxima, Rixathon) especially if given in last 12 months
All anti-TNF drugs: etanercept (for example Enbrel, Elrezi, Benepali), adalimumab (for example Humira, Amgevita), infliximab (for example Remicade, Inflectra), golimumab, certolizumab
Tocilizumab – unable to mount a CRP response, IV or s/c
Abatacept IV or SC
JAK inhibitors (for example baricitinib oral, tofacitinib oral)
Belimumab IV
Anakinra SCc
Secukinumab
Ixekizumab
Apremilast (I)

Immunosuppressant or indicative medications
Sarilumab
Ustekinumab
Other treatments not listed elsewhere with an increased risk
Human stem cell transplant
Apheresis

Table 3: COVID-19 – Identifying patients for shielding in England (V3 Published 24 March 2020)

Risk stratification guide	Patients to shield	Patients to self-isolate or maintain social distance at their discretion	Patients to maintain social distance
Immunosuppressive medication	Corticosteroid dose of 20mg (0.5mg/kg) or more prednisolone (or equivalent) per day for more than 4 weeks Cyclophosphamide at any dose orally or within last 6 months IV Corticosteroid dose of 5mg or more prednisolone (or equivalent) per day for more than 4 weeks plus at least 1 other immunosuppressive medication*, biologic/ monoclonal** or small molecule immunosuppressant (for example JAK inhibitors)*** Any 2 agents among immunosuppressive medications, biologics/monoclonals** or small molecule immunosuppressants with any comorbidity****	Well-controlled patients with minimal disease activity and no comorbidities on single agent broad spectrum immunosuppressive medication, biologic/monoclonal** or small molecule immunosuppressant Well-controlled patients with minimal disease activity and no comorbidities on single agent broad spectrum immunosuppressive medication plus sulfasalazine and/ or hydroxychloroquine Well-controlled patients with minimal disease activity and no comorbidities on a single agent broad spectrum immunosuppressive medication* at standard dose (for example methotrexate up to 25mg per week) **plus** single biologic (for example anti-TNF or JAKi)** or ***	Single agent 5-ASA medications (for example mesalazine) Single agent 6-mercaptopurine Only inhaled or rectally administered immunosuppressant medication Hydroxychloroquine Sulfasalazine

* Immunosuppressive medications include: azathioprine, leflunomide, methotrexate, mycophenolate (mycophenolate mofetil or mycophenolic acid), ciclosporin, cyclophosphamide, tacrolimus, sirolimus. It does NOT include hydroxychloroquine or sulfasalazine 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.

*** Small molecules includes: all JAK inhibitors – baracitinib, tofacitinib etc.

**** Comorbidity includes: age over 70, diabetes mellitus, any pre-existing lung disease, renal impairment, any history of ischaemic heart disease or hypertension. Patients who have rheumatoid arthritis (RA) or CTD-related interstitial lung disease (ILD) are at additional risk and may need to be placed in the shielding category. All patients with pulmonary hypertension are placed in the shielding category.

NB This advice applies to adults, children and young people with rheumatic disease. We do **NOT** advise that patients increase steroid dose if they become unwell.

Source: British Society for Rheumatology's Identifying patients for shielding in England (first published 22 March 2020)

Table 4 Escalation matrix according to prevalence of COVID-19 infection and associated available hospital resources

	Low (equivalent to winter pressures)	**Medium** (ITU beds start to be in short supply, still reasonable number of hospital beds)	**High** (no ITU beds, theatre pods being used, very low hospital beds, capacity increased by emergency discharges as per mass casualty plans, elective operating stopped)	**Very high** (as per high but also reduced capacity for emergency surgery)
All services: outpatient clinics	**New patients:** continue as usual **Follow-up:** reduce long-interval (more than 3 months) follow- up visits	**New patients:** continue as usual **Follow-up:** cut non-essential follow-up visits; adjust templates to minimise waiting times in department; option for telephone or video consultation instead of face-to-face consultation, unless absolutely necessary to see face to face	**New patients:** cut all but urgent clinic attendances; new patients with suspected inflammatory arthritis including autoimmune connective tissue disease and vasculitis should be seen, other urgent new patients to be triaged by consultant to determine if they need to be seen Suspend routine new patients **Follow-up patients:** urgent patients only - to be given option of telephone or video consultation unless absolutely necessary to see face to face Suspend routine follow ups	**New patients:** cut all but urgent clinic attendances; new patients with suspected inflammatory arthritis including autoimmune connective tissue disease and vasculitis should be seen, other urgent new patients to be triaged by consultant to determine if they need to be seen Suspend routine new patients **Follow-up patients**: urgent patients only- to be given option of telephone or video consultation unless absolutely necessary to see face to face Suspend routine follow ups
Patients on conventional DMARDs, JAK inhibitors and biologics	Maximise blood tests out of hospital where local resources allow Minimise attendances in clinics Consider frequency of blood monitoring appointments and whether they could be reduced in stable patients who are established on treatment Use telephone/video consultations if possible	Post/ home delivery of oral systemic drugs/provide FP10 prescriptions for readily available drugs; where possible prescription duration should be extended, sometimes to 3 months Schedule appointments to avoid patients waiting for treatments Maximise use of home care administration On case-by-case basis, determine if patient could reduce any of their	On case-by-case basis, determine if patient could reduce any of their medication	On case-by-case basis, determine if patient could reduce any of their medication

	Low (equivalent to winter pressures)	**Medium** (ITU beds start to be in short supply, still reasonable number of hospital beds)	**High** (no ITU beds, theatre pods being used, very low hospital beds, capacity increased by emergency discharges as per mass casualty plans, elective operating stopped)	**Very high** (as per high but also reduced capacity for emergency surgery)
		medication		
Day case units	As usual	Screen patients to check if treatment could be deferred, for example patient stable and on regular rituximab infusions Switch IV infusions to subcutaneous injections where available, for example tocilizumab and abatacept	Screen patients to check if treatment could be deferred, for example patient stable and on regular rituximab infusions Denosumab must not be deferred (consider administration in the community) but zoledronate could be deferred up to 6 months	Screen patients to determine benefit versus risk with delay in treatment Denosumab must not be deferred (consider administration in the community) but zoledronate could be deferred up to 6 months
Rheumatology advice lines (consider providing extra cover from home by nurses needing to self-isolate)	Key resource; prompt response required	Key resource; prompt response required	Key resource; prompt response required Management of disease flare: have a lower threshold for issuing acute prescriptions where appropriate, for example colchicine for gout or prednisolone for RA flare, consider using FP10	Key resource; prompt response required Management of disease flare: have a lower threshold for issuing acute prescriptions where appropriate, for example colchicine for gout or prednisolone for RA flare, consider using FP10
On-call service (hospitals where rheumatology out-of-hours on-call service is not available currently, should consider implementing an on-call rota)	Ensure good liaison with acute services and be involved in the management of rheumatology patients admitted with coronavirus In case of consultants needing to self-isolate but otherwise well, they could provide second-on on-call service and give advice on the phone	Ensure good liaison with acute services and be involved in the management of rheumatology patients admitted with coronavirus In case of consultants needing to self-isolate but otherwise well, they could provide second-on on-call service and give advice on the phone	Ensure good liaison with acute services and be involved in the management of rheumatology patients admitted with coronavirus In case of consultants needing to self-isolate but otherwise well, they could provide second-on on-call service and give advice on the phone	Ensure good liaison with acute services and be involved in the management of rheumatology patients admitted with coronavirus In case of consultants needing to self-isolate but otherwise well, they could provide second-on on-call service and give advice on the phone In case of a significant number of consultants off work, consider liaising with nearby hospital on- call service and use virtual regional MDT meeting facility

Other considerations

- We should avoid unproductive attendances at hospital.
- Senior decision-making at the first point of contact should reduce or even prevent the need for further attendances.
- Clinicians may need to work in unfamiliar environments or outside their sub-specialist areas. They will need to be supported.
- The possibility of a 7-day service may need to be considered.
- Using virtual clinic (VC) will not reduce ED workload. Hospitals using this system may need to switch during the crisis to the system outlined above.
- The patient information used in VC will be very effective in reducing follow-up visits.
- Consider postponing long-term follow-up patients until the crisis has passed. CT scanning may be limited as it is the investigation of choice for coronavirus pneumonitis.

Publications relevant to rheumatology and COVID-19

BSR Identifying patients for shielding in England (first published 22 March 2020)

Clinical guide during the COVID-19 pandemic for the management of patients with musculoskeletal and rheumatic conditions who are already taking corticosteroids, or require initiation of oral/IV corticosteroids, or require an intra-articular or intra-muscular corticosteroid injection (published June 2020)

Chartered Society of Physiotherapy database of resources for self-management of musculoskeletal conditions

COVID-19 rapid guideline: rheumatological autoimmune, inflammatory and metabolic bone disorders. NICE guideline NG167 (published 3 April 2020)

Safeguarding

It is our understanding that the NHS community health services restoration plan, Coronavirus Act 2020, Coronavirus (COVID-19) changes to the Care Act 2014 and the variety of Public Health England COVID-19 guidance are all indicating that safeguarding children and adults is as critical during COVID as it is statutory at other times. Staff across the health and care sector are advised to:

1. download the free NHS Safeguarding App, which has local safeguarding

contacts

2. follow #COVIDSafeguarding via @NHSsafeguarding on Twitter, who will be posting daily updates and key messages
3. join our COVID Safeguarding digital community of practice.

Update information

November 2020: hyperlinks in this document were updated when the suite of guidance was moved from NHS England to NICE.
8 April 20202: version 2 published
16 March 2020: version 1 published.