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Coexisting Immune-Mediated Inflammatory Diseases (IMIDs) and Their Impact on Patient's Quality of Life

Exploring the impact of comorbidities on disease severity and the need for patient-centric approaches to improve treatment outcome

IMID refers to a heterogeneous group of chronic diseases involving shared inflammatory pathways and pathogenic mechanisms[1]

Why do some patients with IMID not show sufficient response to treatment?

Coexisting IMID that does not respond well to the drug given for the first IMID[2]

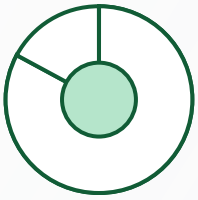
Comorbidity that is unresponsive to the treatment used for the IMID[3]

Inter-relationship between IMIDs

Patients with concomitant IMIDs show more aggressive disease phenotype[4]

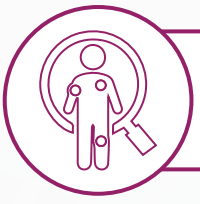
Patients with psoriasis had a higher (15.5%) prevalence of concomitant IMIDs, including psoriatic arthritis (PsA), spondyloarthritis, ankylosing spondylitis, inflammatory bowel disease (IBD), Crohn's disease, and uveitis, compared to the general population[5]

Patients previously diagnosed with an IMID prior to IBD often require immunomodulator and/or biological treatment[6]



Among IBD patients with a concomitant IMID, 79.8% had an aggressive disease course, compared to 8.1% of those with only IBD[4]

Early diagnosis and multi-specialist care are pivotal for patients with concomitant IMIDs[4,7–9]



Crucial for reducing the progressively deleterious course of primary and associated IMIDs[9]

Can help avoid diagnostic delays, choose the correct therapies, prevent complications, and improve both clinical outcomes and patients' quality of life (QoL)[7,8]

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Recommendations for clinicians evaluating treatment strategies for IMIDs

Recognise the signs and symptoms of IMIDs, and be familiar with their inter-relationships to avoid diagnostic delays[7]

Consider the overall characteristics of the IMIDs to identify a single therapeutic strategy[7]

For instance, dysregulation of interleukin-23 (IL-23) and tumour necrosis factor (TNF) signalling in IBD and psoriasis indicates a common therapy pathway

Pharmaceutical/medical options for IMID therapy

- Anti-gout agents[10]
- Anti-TNF agents[7,11,12]
- Anti-Janus kinase (JAK) agents[7,11,12]
- Anti-IL-17 agents

(used for psoriasis but may worsen IBD)[7,11,12]

- Immunoglobulins[7,11,12]
- Steroids (to be avoided in epidermolysis bullosa acquisita)[7,11,12]
- Liver transplantation

(for primary sclerosing cholangitis (PSC) overlap syndrome)[7]

- Immunosuppressants (first-line therapy for autoimmune hepatitis)[7,11,12]
- Sphingosine-1 receptor modulators (potentially beneficial for both IBD and multiple sclerosis (MS), still under study for IBD)[7,11,12]
- Monoclonal antibody medications[7,11,12]

Therapies alleviate IMID symptoms and enhance QoL for most, but not all patients

IBD[2]

In most patients with IBD, effectively treating intestinal inflammation often does not address extraintestinal manifestations (EIMs) adequately

- Medications typically used for intestinal inflammation may effectively manage:
  - Oral aphthous ulcers, episcleritis, or erythema nodosum
- However, they may not be equally effective in:
  - Anterior uveitis, ankylosing spondylitis, and PSC, as these conditions usually occur independently of disease flares

Axial spondyloarthritis (axSpA)[13]

Treatment strategies include:

- Physiotherapy
- Regular physical exercise
- Nonsteroidal anti-inflammatory drugs
  - Achieves partial remission in only one-third of patients[13]
- Biologic disease-modifying anti-rheumatoid drugs[8]
- Monoclonal anti-TNF antibodies: can be effective in reducing disease activity[13]

For non-responders, the therapeutics recommended are:

- Alternative TNF
- Anti-IL-17 monoclonal antibody
- JAK inhibitors[14]

Rheumatoid arthritis (RA)	Vitiligo	Hidradenitis suppurativa (HS)	Alopecia areata (AA)	Atopic dermatitis (AD)
Current therapeutic approaches for RA are unable to address extra-axial manifestations (EAMs) that present as skin and ocular manifestations, and cardiovascular and pulmonary comorbidities[3]	None of the existing vitiligo treatments can consistently produce repigmentation in all patients[15]	New therapeutics are being tested to treat therapy-refractory disease HS coexists with psoriasis and axSpA; however, drugs effective in psoriasis are not as effective in HS as inflammatory pathways in HS may be wider and different[16]	Patients with AA have poorer sleep quality than healthy controls, linked to anxiety, depression, and lower QoL[17] JAK inhibitors are effective and generally well-tolerated in treating AA. Some patients may achieve temporary, complete clearance of their disease and symptoms	AD treatments often inadequately reduce itch, affecting sleep and QoL[18] Both JAK inhibitors and various monoclonal antibodies are now licensed for treatment. Some patients may achieve temporary, complete clearance of their disease and symptoms[19]

Residual symptoms and disease burden remain high. They are likely to be the outcomes of disease aggressiveness observed in patients with concomitant IMIDs or coexisting EIM/EAM, and unresponsiveness or tolerance to existing therapies[3,20,21]

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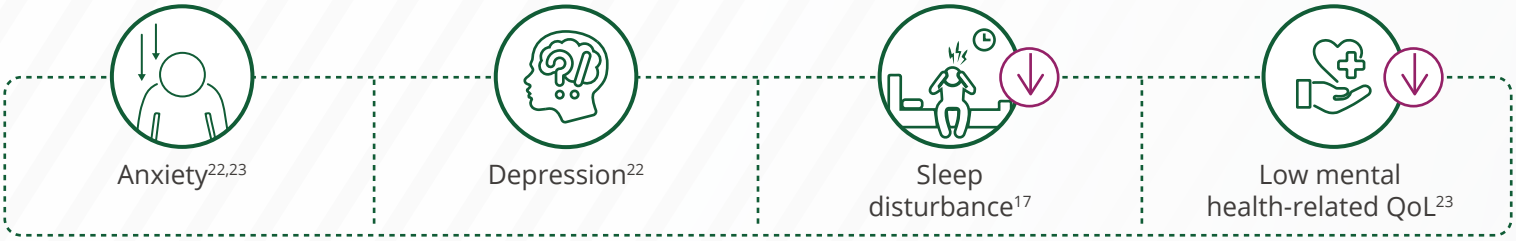
Substantial prevalence of depression and anxiety is observed among patients with IMID and their clinical management may improve treatment outcomes[22,23]

Psychological distress in patients with IMID[22,23]

Disease-related factors such as actively inflamed joint count, disability, pain, and fatigue are also correlated with an increased likelihood of developing depression and/or anxiety and those, in turn, have great implications on health-related QoL and well-being



Prevalence of anxiety and depression in patients with IMID

IMID	Anxiety	Depression
Psoriatic arthritis[22]	19%	17%
RA[23]	14%	16.8–38.8%
HS[24]	4.9%	16.9%
AD[25]	17.2%	10.1%
Vitiligo[26]	35.8%	-
Psoriasis[27]	-	30%

66% higher risk of depression found among patients with PsA compared to those without PsA[22]

Comorbid anxiety is linked to the poor physical health of patients with RA[28]

Early recognition and treatment of comorbid anxiety improves other disease outcomes[27]

Strategies to cope with depression[23]

Being aware of mental health issues[23]

Seeking intervention (psychotherapy, relaxation, or disease coping techniques, cognitive behavioural therapy, mindfulness practice, supportive counselling)[29,30]

Group therapy for anxiety or mindfulness practice[30]

Exercising, eating healthy, taking prescription medication[30]

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Patient-centric strategies to improve IMID treatment outcomes[31]

Treat-to-Target (T2T) is an approach that sets specific, measurable goals for treatment and adjusting therapies as needed to achieve and maintain those goals. The dual T2T management emphasises patient-centered care, with regular monitoring and proactive treatment adjustments[32]

The targets of this strategy are:

- Inflammation control (measured by a disease activity index)
- Disease impact control (measured by patient-reported outcome measures covering various domains like pain, QoL, and functioning)

The T2T strategy aims to[31]:

- Improve engagement between specialist and the patient
- Emphasise the patient as a partner, focusing on goals beyond the usual treatment goals set by the specialist
- Set effective and achievable treatment goals that the patient and specialist agree upon
- Address potential barriers to treatment

Often, a significant proportion of patients achieve the mutually agreed goals. For instance, in T2T strategy for patients with RA[31]:

- 79.7% achieved disease remission
- 47.8% achieved symptom control
- 44.5% reduced impact on QoL

Patient-clinician agreement on treatment goals results in[31]:

- Patient satisfaction
- Patient engagement
- Treatment success

Key message

A patient-centric approach of frequent evaluation and management of residual disease burden, associated comorbidities, and mental health issues is pivotal to improving the prognosis of patients with IMID and their health-related QoL

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