

# Key Publication Summary Messages for Women: **Burden of Comorbidities in Psoriasis**

This material is a collection of infographics regarding common comorbidities for patients with psoriasis, particularly women



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# Methodology and Contents Summary

A literature search was conducted using search criteria agreed by the Faculty. PubMed and Google Scholar were searched using the selected criteria and the top two result pages were searched for English publications published from 2019 onwards. The Faculty reviewed the publications and selected key content for inclusion which could be most relevant for treating women with psoriasis and associated comorbidities in clinical practice

 Information specifically relevant to your female patients is highlighted with this icon in each infographic

 Click on this icon on each infographic to return to this contents page

## Inflammatory Bowel Disease (IBD)

  Female sex and PsA are risk factors for IBD.<sup>1</sup> Women with psoriasis have 2.3 times higher odds (OR: 2.3) of Crohn's disease (CD) compared with women without psoriasis<sup>2</sup>

## Mental Health and Psychological Wellbeing

Among women with psoriasis, there is a strong interdependence between their physical, emotional and social wellbeing

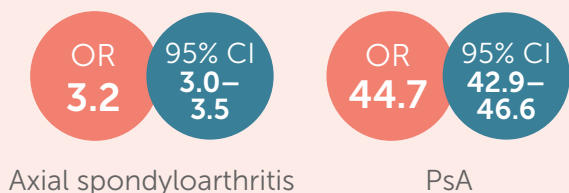
Women with psoriasis have a lower quality of life...



## Psoriatic Arthritis (PsA)

Screening psoriasis patients for PsA is essential at each visit as cutaneous disease precedes arthritis in 72.7% of patients<sup>9</sup>



Joint involvement is more likely in women with psoriasis compared to those without:<sup>2</sup>



## Obesity and Metabolic Syndrome

Prevention of Type 2 Diabetes through weight loss is crucial for patients with psoriasis<sup>10</sup>

Women with psoriasis are at increased risk of:<sup>11</sup>

-  Diabetes, independent of their BMI
-  Obesity

## Cardiovascular Comorbidities

Psoriasis is an important risk factor for **cardiometabolic disease**<sup>10,13</sup>

**Early targeted screening** for and close monitoring of classic cardiometabolic risk factors may be important when treating patients with psoriasis, particularly women<sup>10, 12, 15</sup>

Higher prevalence of cardiovascular risk factors is observed in young women with psoriasis<sup>13</sup>





Some biologics can dampen down the symptoms of IBD<sup>1\*</sup>

Patients receiving some biologic treatments for psoriasis may:<sup>1</sup>



Experience fewer IBD symptoms



Be less likely to receive an IBD diagnosis

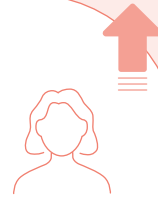
Mean time to Crohn's disease (CD) diagnosis was significantly longer for psoriasis patients compared with the general population...<sup>1</sup>



...and even longer for patients receiving systemic psoriasis treatment<sup>1</sup>



Female sex and PsA are risk factors for IBD<sup>1</sup>



Women with psoriasis have **2.3 times higher** odds (OR: 2.3) of CD...

...compared with women without psoriasis<sup>2</sup>

Compared to their non-psoriasis peers, incidence rates (IR) of CD were highest for:<sup>1</sup>

Younger women with psoriasis\*\*

IR **4.3** 95% CI **3.1–5.8**

Psoriasis patients with concurrent PsA

IR **2.5** 95% CI **1.6–3.8**

## Clinical Considerations



Check for **family history** and **gastrointestinal signs and symptoms** in your patients:

- ? Persistent diarrhoea
- ? Rectal bleeding/bloody stools
- ? Fatigue
- ? Abdominal pain
- ? Unexplained weight loss

Refer to a **Gastroenterologist** where needed



\*anti-TNFs and anti-12/23s; \*\*Younger than 30 years.

Reviewed by: Prof Dominik Bettenworth, Gastroenterologist, Medical Faculty of the University of Münster, Münster, NRW, Germany.



Psoriasis is associated with depression and anxiety, and this should be addressed with patients<sup>9</sup>



## Psychological Distress

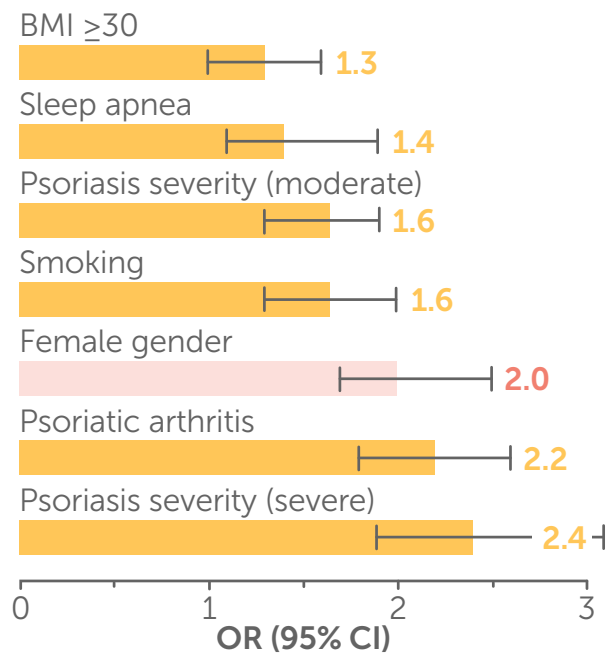
Anxiety and depression are more prevalent among women with psoriasis,<sup>7</sup> who are also at increased risk for suicide ideation and attempts<sup>15</sup>

## Sexual Dysfunction

Psoriasis can have a significant impact on quality of life (QoL) and sexuality, with **sexual dysfunction** reported in both patients (**95.3%**) and their partners (**40.9%**)<sup>3</sup>

## Sleep Dysfunction

In patients with psoriasis, sleep difficulty was associated with:<sup>4</sup>



Chronic sleep dysfunction in patients with psoriasis can lead to adverse health outcomes, including cardiovascular disease, hypertension, obesity, Type 2 Diabetes Mellitus, depression, and all-cause mortality<sup>4</sup>

Dermatologists should screen patients with psoriatic disease to identify...



...and effectively guide disease management<sup>4</sup>

## Women with psoriasis have...



Body image and self-esteem issues, which affect women with psoriasis more than men<sup>16</sup>



Increased sexual dysfunction;<sup>16</sup> clinical severity and impact on QoL were associated with sexual dysfunction in male partners of women with psoriasis, but not in female partners of men with psoriatic disease<sup>3</sup>

## Clinical Considerations



Physicians should more intensively screen **female patients** with psoriasis to identify potentially **significant psychological distress**<sup>5-8</sup>

**Assessing sleep (quantity and quality)** can be a useful way to start a more in-depth conversation regarding overall mental wellbeing



Risk of obesity may be higher in psoriasis patients due to the proinflammatory state and release of mediators such as adipokines that contribute to inflammation<sup>11</sup>

Weight loss interventions in patients lead to:<sup>11</sup>

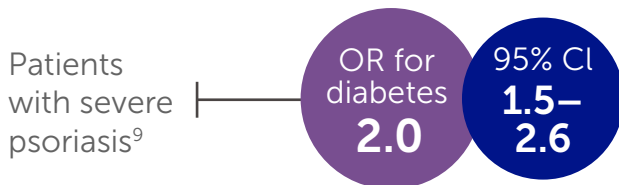


Greater reduction in the severity of psoriasis compared with patients not receiving the intervention



Increase in drug efficacy in those on biologic treatment

Prevention of Type 2 Diabetes through weight loss is crucial for patients with psoriasis:<sup>10</sup>



There is a higher prevalence of **metabolic syndrome** diagnostic criteria in patients with psoriasis compared with those without psoriasis:<sup>12</sup>

- ✓ Higher fasting glycaemia levels
- ✓ Higher blood pressure
- ✓ Lower high density lipoprotein (HDL)
- ✓ Higher hypertriglyceridemia
- ✓ Greater waist circumference

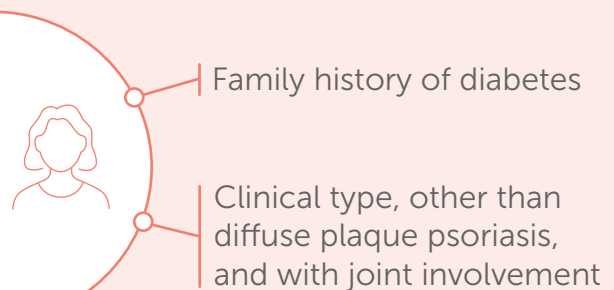


Women with metabolic syndrome have a higher chance of psoriasis compared with men<sup>17</sup>

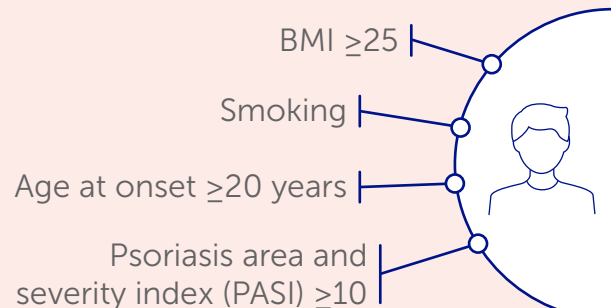


Women with psoriasis are at increased risk of diabetes independently of their BMI<sup>11</sup>

**In psoriasis patients, female sex was associated with:<sup>5</sup>**



**While male sex was associated with:**



## Clinical Considerations



**Screen for metabolic risk factors** regularly in your psoriasis patients, increasing regularity of screening with increasing psoriasis severity

It is important to **educate patients on the importance of a healthy lifestyle** due to the increased risk of obesity and diabetes in psoriasis patients

Screen for diabetes and metabolic syndrome in **all women** and **not only in those who are overweight or obese**



Reviewed by: Dr Leticia Fernández-Friera, Cardiologist, Co-founder Atriaclinic, Madrid; Cardiac Imaging Unit and Cardio-Mujer Unit, HM Hospitals, Spain.



Psoriasis, through systemic inflammation, is an important risk factor for cardiometabolic disease, atherogenesis and ischaemic cardiovascular events<sup>13</sup>

Early targeted screening for classic cardiometabolic risk factors may be important when treating patients with psoriasis, and in particular women:<sup>10, 13</sup>



Hypercholesterolaemia



Hyperglycaemia



Hypertension

There is a need for close monitoring of cardiovascular risk factors in patients with psoriasis, who often only visit the dermatologist, to prevent a major cardiovascular event<sup>12</sup>

Biological therapy may affect atherosclerosis...<sup>13</sup>



...**reducing the growth and development** of atheromatous plaques<sup>13</sup>



Higher prevalence of cardiovascular risk factors is observed in women with psoriasis compared to men<sup>13</sup>



Compared with the general population, women with psoriasis have a higher risk of:<sup>10, 13</sup>

- ! Self-reported hypercholesterolaemia
- ! Hospital-diagnosed hypertension
- ! Deep vein thrombosis
- ! Atherosclerotic cardiovascular disease

Cardiovascular risks are higher in young women\* with psoriasis compared to men, and this is the inverse to what is observed in the general population<sup>13</sup>

Women with psoriasis have higher odds of hospitalisation (OR: 1.79), visiting outpatient clinics (OR: 2.12), and visiting their GP (OR: 3.82) compared to women without psoriasis<sup>2</sup>



There is an increased risk for **myocardial infarction** in men and women with moderate-to-severe psoriasis...<sup>14</sup>

...whereas the risk for **ischemic stroke** is elevated in women with moderate-to-severe psoriasis<sup>14</sup>



## Clinical Considerations



**Screen for cardiometabolic risk factors** regularly in your psoriasis patients, increasing **regularity of screening** with increasing psoriasis severity and ensuring to screen female patients **as frequently as males**

It is important to **educate patients** on the **increased risk of cardiovascular events** in psoriasis patients, with special consideration in young women

**Family history** and **lifestyle choices** (smoking, alcohol, diet and exercise) should be considered

\*Women aged 20–35 years.

Reviewed by: Dr Leticia Fernández-Friera, Cardiologist, Co-founder Atriaclinic, Madrid; Cardiac Imaging Unit and Cardio-Mujer Unit, HM Hospitals, Spain.

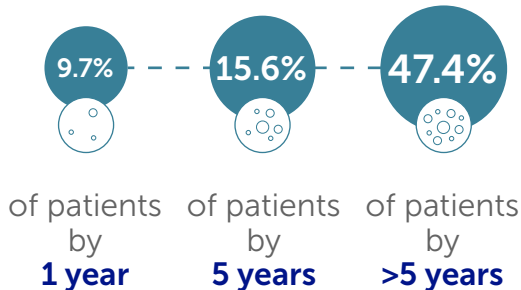



Screening psoriasis patients for PsA at each visit is essential, as cutaneous disease precedes arthritis in the vast majority of patients<sup>9</sup>

**20.5%** of psoriasis patients develop PsA within 30 years,<sup>9</sup> and...

...**72.7%** of patients experience skin lesions before arthritis<sup>9</sup>

Skin lesions preceded joint involvement in:<sup>9</sup>



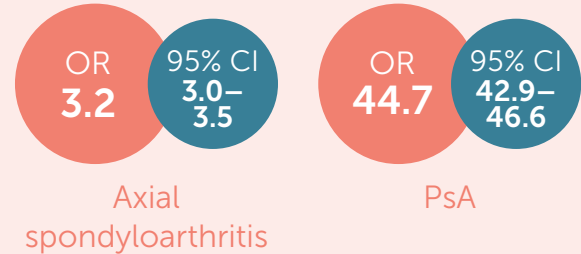
 Psoriasis patients with a **higher body surface area (BSA)** are more likely to develop PsA (OR for 1% increase in BSA: 1.02)<sup>9</sup>

## Importance of screening

Uncontrolled arthritis causes radiologic signs of joint damage in >50% of patients<sup>9</sup>







**Joint involvement is more likely in women with psoriasis compared to those without:<sup>2</sup>**



Women with endometriosis have a nearly 2-fold greater risk of PsA (HR: 1.77)<sup>18</sup>

## Women with psoriasis and PsA...<sup>18</sup>

-  ...have a higher mean BMI
-  ...are less physically active
-  ...are more likely to experience infertility
-  ...are more likely to use over-the-counter analgesics such as aspirin and acetaminophen  $\geq 2$  days/week

...than patients without psoriasis



## Clinical Considerations

**Regular screening** is important for early diagnosis and treatment of PsA, to prevent **progression of irreversible joint damage**

It is important to evaluate **treatments that target both skin and joints**

Nail psoriasis correlates with more severe disease and is an **important predictor of PsA**

Reviewed by: Dr Maria Sole Chimenti, Rheumatologist, Rheumatology Unit, University of Rome Tor Vergata, Italy.



1. Egeberg A et al. Incidence and risk of inflammatory bowel disease in patients with psoriasis—A nationwide 20-year cohort study. *J Invest Dermatol.* 2019;139(2):316–323.
2. Bachdal Johansen C et al. Comorbidities, socioeconomic status, drug use, and health care consumption in Danish women with psoriasis: A nationwide cross-sectional study. *Int J Womens Dermatol.* 2020;7(3):246–258.
3. Halioua B et al. Impact of patient psoriasis on partner quality of life, sexuality and empathy feelings: A study in 183 couples. *J Eur Acad Dermatol Venereol.* 2020;34(9):2044–2050.
4. Smith MP et al. Factors influencing sleep difficulty and sleep quantity in the Citizen Psoriasis cohort. *Dermatol Ther.* 2019;9(3):511–523.
5. Napolitano M et al. Sex- and gender-associated clinical and psychosocial characteristics of patients with psoriasis. *Clin Exp Dermatol.* 2020;45(6):705–711.
6. Sahi FM et al. Association between psoriasis and depression: A traditional review. *Cureus.* 2020;12(8):e9708.
7. Martinez-Ortega JM et al. Quality of life, anxiety and depressive symptoms in patients with psoriasis: A case-control study. *J Psychosom Res.* 2019;124:109780.
8. Kojanova M et al. Demographic data, comorbidities, quality of life, and survival probability of biologic therapy associated with sex-specific differences in psoriasis in the Czech Republic. *Dermatol Ther.* 2021;34(2):e14849.
9. Elmetts CA et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with awareness and attention to comorbidities. *J Am Acad Dermatol.* 2019;80(4):1073–1113.
10. Blegvad C et al. Psoriasis as a predictor of cardiometabolic comorbidity in women: A study based on the Danish National Birth Cohort. *Acta Derm Venereol.* 2019;99(3):274–278.
11. Misitzis A et al. Skin disease related to metabolic syndrome in women. *Int J Womens Dermatol.* 2019;5(4):205–212.
12. Fernández-Armenteros JM et al. Psoriasis, metabolic syndrome and cardiovascular risk factors. A population-based study. *J Eur Acad Dermatol Venereol.* 2019;33(1):128–135.
13. Branisteanu DE et al. Cardiovascular comorbidities in psoriasis (Review). *Exp Ther Med.* 2022;23(2):152.
14. Jung KJ et al. Increased risk of atherosclerotic cardiovascular disease among patients with psoriasis in Korea: A 15-year nationwide population-based cohort study. *J Dermatol.* 2019;46(10):859–866.
15. Liang SE et al. Psoriasis and suicidality: A review of the literature. *Dermatol Ther.* 2019;32(1):e12771.
16. Hassani F et al. An evaluating of the relationship between body image, body satisfaction, depression, marital quality, and self-esteem in patients with psoriasis. *Psychol Health Med.* 2021;26(4):467–477.
17. Sondermann W et al. Psoriasis, cardiovascular risk factors and metabolic disorders: Sex-specific findings of a population-based study. *J Eur Acad Dermatol Venereol.* 2020;34(4):779–786.
18. Harris HR et al. Endometriosis, psoriasis, and psoriatic arthritis: A prospective cohort study. *Am J Epidemiol.* 2022;191(6):1050–1060.

**BMI:** Body mass index; **BSA:** Body surface area; **CD:** Crohn's disease; **CI:** Confidence interval; **GP:** General Practitioner; **HR:** hazard ratio; **HDL:** High density lipoprotein; **IBD:** Inflammatory bowel disease; **IL:** Interleukin; **IR:** Incidence rate; **OR:** Odds ratio; **PASI:** Psoriasis Area and Severity Index; **PsA:** Psoriatic arthritis; **QoL:** Quality of Life; **TNF:** Tumour necrosis factor.