

Table II. Psoriasis and PsA comorbidity strength of recommendation

Recommendation number	Recommendation	Strength of recommendation
1.1	Patients with psoriasis should be informed about the association between psoriasis and PsA.	B
1.2	PsA should be considered in all patients with cutaneous psoriasis.	B
1.3	Patients with signs and symptoms suspicious for PsA should be fully evaluated for PsA. Initiate appropriate PsA therapy if comfortable with the diagnosis or otherwise consult with a rheumatologist for assessment and management.	A

PsA, Psoriatic arthritis.

Table III. Psoriasis and psoriatic arthritis comorbidity level of evidence

Recommendation	Recommendation number	Level of evidence	Studies
Education			
Association of psoriasis and psoriatic arthritis	1.1	II-III	8-13,19,20
Screen			
Psoriatic arthritis	1.2	II-III	10-12,16,20,22-29
Positive screen for psoriatic arthritis: further evaluation and consultation with a rheumatologist	1.3	II-III	Expert opinion

General Practice Research Database registered during 1987-2002.³⁴ There were 130,980 patients with psoriasis and 556,995 control subjects. Based on prescriptions or treatments, the psoriasis patients were further subdivided by disease severity: mild ($n = 127,139$) or severe ($n = 3837$). Overall, the rates of MI were 2.0% for controls, 1.8% for patients with mild psoriasis, and 2.9% for patients with severe psoriasis. The incidence rate per 1000 person-years was 3.58 (95% CI 3.52-3.65) for controls, 4.04 (95% CI 3.88-4.21) for patients with mild psoriasis, and 5.13 (95% CI 4.22-6.17) for patients with severe psoriasis. Furthermore, the adjusted relative risk (RR) was age dependent, with younger patients having the highest adjusted RR for MI (Fig 3).³⁴

Further association between psoriasis and cardiovascular health, particularly relating to stroke, was published by Gelfand et al in 2009.³⁵ The electronic medical records of 132,746 psoriasis patients and 510,996 control patients treated during 1987-2002 were abstracted from the UK General Practice Research Database. The psoriasis patients were assigned to then mild ($n = 129,143$) or severe ($n = 3603$) psoriasis groups, depending on medications or treatments. After adjusting for major risk factors for stroke, both mild (adjusted hazard ratio [aHR] 1.06, 95% CI 1.0-1.1) and severe (aHR 1.43, 95% CI 1.1-1.9) psoriasis were independent risk factors for stroke. The excess risk for stroke attributable to patients with psoriasis with mild and severe disease

Fig 3. Relative risk of myocardial infarction with age for psoriasis patients. Reproduced with permission from: Gelfand JM, Neimann AL, Shin DB, Wang X, Margolis DJ, Troxel AB. Risk of myocardial infarction in patients with psoriasis. *JAMA*. 2006;296(14):1735-1741 Copyright © 2006 American Medical Association. All rights reserved.³⁴

was 1 in 4115 per year and 1 in 530 per year, respectively.

Major adverse cardiovascular events (MACEs) is a composite of outcomes that includes MI, stroke, heart failure, and cardiovascular death. It is used in most conventional algorithms for patient population