**Supplementary Table 1.** Search strategy used for literature screening.

Database(s):

Embase Classic+Embase1947 to 25 September 2023, Ovid MEDLINE® ALL1946 to 25 September 2023

Search strategy:

| # | Searches | Results |
|---|---|---|
| 1 | biologic.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 196,302 |
| 2 | secukinumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 9,421 |
| 3 | ustekinumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 16,417 |
| 4 | ixekizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 4,773 |
| 5 | bimekizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 647 |
| 6 | guselkumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 2,968 |
| 7 | tildrakizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 1,412 |
| 8 | risankizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 1,987 |
| 9 | brodalumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 2,576 |
| 10 | bimekizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 647 |
| 11 | il-17.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 60,076 |
| 12 | il-23.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 19,565 |
| 13 | anti-tnf.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 40,966 |
| 14 | adalimumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 57,861 |
| 15 | infliximab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 82,480 |
| 16 | etanercept.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 48,691 |
| 17 | golimumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 12,046 |
| 18 | certolizumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 11,667 |
| 19 | anakinra.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 12,441 |
| 20 | canakinumab.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 6,138 |
| 21 | rilonacept.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 1,456 |
| 22 | psoriasis.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 167,510 |
| 23 | (hiv or human immunodeficiency virus).mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] | 992,135 |
| 24 | 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 | 408,891 |
| 25 | 22 and 23 | 2,574 |
| 26 | 24 and 25 | 556 |
| 27 | limit 26 to english language | 521 |
| 28 | limit 27 to humans | 480 |
| 29 | remove duplicates from 28 | 415 |

**Supplementary Table 2.**Individual features of 39 patients with psoriasis and HIV infection treated with anti-interleukin drugs.

| Study | Age/ Sex (n) | Comorbidities and coinfections (n) | Previous treatment for HCV/HBV/TB? | Mean duration of HIV, months | Antiretroviral regimen for HIV | Mean duration of psoriasis (months) | Type of psoriasis (n) | Prior failed therapies for psoriasis (route) | Biologic with reported PASI/viral load/CD4 cell values | PASI:(pre-treatment)/(post-treatment) | Mean change in PASI from baseline (%) | Viral load: (pre-treatment)/(post-treatment) | CD4+ cell count: (pre-treatment)/(post-treatment) | Treatment duration (days): First-line/subsequent-line | Grade 1 or grade 2 AEs: First-line (n)/subsequent-line (n) | Grade 3 or grade 4 AEs: First-line (n)/subsequent-line (n) | Treatment discontinuation due to AEs (Y/N): First-line/subsequent-line | Treatment deaths due to AEs (Y/N): First-line/subsequent-line |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bardazzi 2017 [1] | 53/ M | HCV; HCV-related hepatic disease | Y | 264 | HAART | 72 | Plaque | CsA | Ustekinumab 45 mg | 16.2 | -93.80% | NR/NR | 523/454 | 90 | NR | NR | N | N |
| Bardazzi 2017 [1] | 41/ M | None | NR | 48 | HAART | 84 | Plaque | CsA | Ustekinumab 45 mg | 18.9 | -90.50% | NR/NR | 537/606 | 90 | NR | NR | N | N |
| Bardazzi 2017 [1] | 70/ M | Hypertension | NR | 36 | HAART | 48 | Plaque | CsA | Ustekinumab 45 mg | 19 | -92.60% | NR/NR | 186/330 | 90 | NR | NR | N | N |
| Bardazzi 2017 [1] | 43/F | None | NR | 36 | HAART | 72 | Plaque | CsA | Ustekinumab 45 mg | 17.3 | -74% | NR/NR | 535/610 | 90 | NR | NR | N | N |
| Bartos 2018 [2] | 51/ M | NR | NR | NR | HAART | NR | Erythrodermic | ACI, apremilast, phototherapy | Guselkumab 100 mg | NR/NR | NR | NR/NR | NR/Stable | 180 | NR | NR | N | N |
| Bedier 2023 [3] | 65/F | HCV; porphyria cutanea tarda; thrombocytopenic purpura | Y | NR | HAART | 60 | Plaque | MTX | Secukinumab 300 mg | NR/NR | NR | Undetectable/Undetectable | 1535/1098 | 60 | NR | NR | N | N |
| Bernardini 2022 [4] | 30/ M | NR | NR | NR | HAART | 120 | Erythrodermic | CsA, MTX, UVB-NB, Ustekinumab 45 mg | Ixekizumab 80 mg | 47/NR | -90% | NR/NR | NR/Stable | 180/28 | NR/Herpes zoster infection | NR/NR | N/N | N/N |
| DiLernia 2019 [5] | 48/F | Acute myocardial ischemia; psoriatic arthritis | NR | NR | HAART | 240 | Plaque | Apremilast, CsA, UVB-NB | Secukinumab 300 mg | 10.3/0 | -100% | Undetectable/Undetectable | 650/1387 | 35 | NR | Candida esophagitis; erosive gastritis | N | N |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DiLernia 2020 [6] | 62/M | HBV, HCV | Y | 96 | HAART | 168 | Plaque | CsA, UVB-NB, Ustekinumab 45 mg | Brodalumab 210 mg | 20/0 | -100% | Undetectable/Undetectable | 368/Stable | 368/42 | NR/NR | NR/NR | N/N | N/N |
| Estevigno 2024 [7] | 34/F | Obesity, dyslipidaemia | Y | NR | NR | NR | plaque | NR | Risankizumab 150 mg | 24/0 | -100% | 1230/undetactable | 12/300 | 56 | NR | NR | N | N |
| Estevigno 2024 [7] | 35/M | - | Y | NR | HAART | NR | Plaque | NR, acitretin | Risankizumab 150 mg | 21/0 | -100% | Undetectable/undetetable | 512/512 | 56 | NR | NR | N | N |
| Gleason 2023 [8] | 63/M | Metastatic hepatocellular carcinoma | NR | NR | NR | NR | Plaque | TOP | Ixekizumab 80 mg | NR/NR | NR | NR/NR | NR/NR | 120 | NR | NR | N | N |
| Gong 2022 [9] | 33/M | Psoriatic arthritis; type 2 diabetes | NR | 60 | HAART | 72 | Erythrodermic | ACI, Etanercept 50 mg | Secukinumab 300 mg | 20.2/0 | -100% | 100/Stable | 353/327 | 203 | NR | NR | N | N |
| Maliyar 2023 [10] | 36/M | Depression | NR | NR | HAART | NR | Guttate | ACI, apremilast, MTX, phototherapy, Adalimumab 40 mg | Risankizumab 150 mg | 5.4/0 | -100% | Undetectable/Undetectable | 1461/1225 | NR/150 | NR/NR | NR/NR | N/N | N/N |
| Maliyar 2023 [10] | 58/M | Depression; osteoarthritis; type 2 diabetes | NR | NR | HAART | NR | Plaque | Apremilast, PUV, UVB-NB, Ustekinumab, Guselkumab 100 mg | Risankizumab 150 mg | 4/1.6 | -60% | Undetectable/Undetectable | 831/926 | NR/NR/NR | NR/NR | NR/NR | N/N | N/N |
| Montes-Torres 2019 [11] | 46/M | NR | NR | 9.5 | HAART | 31 | Plaque | Adalimumab 40 mg | Ustekinumab | 28/NR | NR | 5734845/45 | 1500/1293 | NR/183 | NR/NR | NR/NR | N/N | N/N |
| Montes-Torres 2019 [11] | 50/M | NR | NR | 319 | HAART | 81.5 | Plaque | Etanercept 50 mg, Adalimumab 40 mg | Ustekunumab | NR | PASI 75 | Undetectable | 722/872 | 2134 | NR | NR | N | N/ |
| Montes-Torres 2019 [11] | 54/M | HCV | NR | 221 | HAART | 72 | Plaque | Etanercept 50 mg, Adalimumab 40 mg, Ustekinumab | Ustekinumab | NR | NR | Undetectable | 350/494 | 1693 | NR | NR | N | N |
| Montes-Torres 2019 [11] | 54/M | Psoriatic arthritis | NR | 156 | HAART | 192 | Plaque | NR | Ustekinumab | NR/NR | NR | Undetectable/Undetectable | 555/1083 | 294 | NR | NR | N | N |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Montes-Torres 2019 [11] | 35/F | Psoriatic arthritis | NR | 78 | HAART | 191 | Plaque | NR | Ustekinumab | 29/NR | NR | 4165/26 | 469/367 | 994 | NR | NR | N | N |
| Muñoz 2020 [12] | 42/M | Anxiety; depression; HBV | Y | NR | HAART | NR | Plaque | ACI, CsA, PUVA | Ustekinumab 45 mg | 23/0 | -100% | 159268/NR | 583/NR | NR | NR | NR | N | N |
| Myers 2021 [13] | 42/M | NR | NR | NR | HAART | NR | Plaque | Etanercept 50 mg, Adalimumab 40 mg | Ustekinumab 90 mg | NR/NR | NR | Undetectable/Undetectable | 1300/1652 | 252/252/56 | NR/NR/NR | NR/NR/NR | N/N/N | N/N/N |
| Myers 2021 [13] | 58/M | Alcohol abuse disorder; HBV | Y | NR | None | NR | Plaque | NR | Ustekinumab 45 mg | NR/NR | NR | 51/76 | 997/1063 | 330 | NR | NR | N | N |
| Orsini 2023 [14] | 53/M | NR | NR | 96 | HAART | 336 | Plaque | NR | Risankizumab 150 mg | 22/0 | -100% | NR/NR | NR/Stable | 112 | NR | NR | N | N |
| Orsini 2023 [14] | 32/M | NR | NR | 36 | HAART | 36 | Plaque | NR | Risankizumab 150 mg | 30/0 | -100% | NR/NR | NR/Stable | 112 | NR | NR | N | N |
| Orsini 2023 [14] | 58/M | NR | NR | 276 | HAART | 36 | Plaque | NR | Risankizumab 150 mg | 20/1 | -95% | Undetectable/Undetectable | 439/Stable | 112 | NR | NR | N | N |
| Orsini 2023 [14] | 52/M | NR | NR | 336 | HAART | 72 | Plaque | NR | Risankizumab 150 mg | 10/0 | -100% | Undetectable/Undetectable | NR/Stable | 112 | NR | NR | N | N |
| Pangilinan 2020 [15] | 60/M | NR | NR | NR | HAART | 84 | Plaque | ACI | Ixekizumab 80 mg | 36/5 | -86.10% | 20/NR | 170/NR | 14 | NR | NR | N | N |
| Pangilinan 2020 [15] | 31/M | NR | NR | NR | HAART | 84 | Erythrodermic | NR | Secukinumab 300 mg | 24/0 | -100% | Undetectable/NR | NR/NR | NR | NR | NR | N | N |
| Paparizos 2012 [16] | 61/M | NR | NR | NR | HAART | 420 | Plaque | ACI, CsA, MTX, PUVA. Etanercept 50 mg | Ustekinumab 45 mg | 11.9/NR | NR | 50/20 | 429/530 | NR/126 | NR/NR | NR/NR | N/N | N/N |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Qin 2022 [17] | 50/M | TB | Y | 84 | HAART | 240 | Plaque | ACI, phototherapy | Secukinumab 300 mg | 15.2/0 | -100% | Undetectable/Undetectable | 546/873 | 84 | NR | NR | N | N |
| Rob 2022 [18] | 36/M | HCV | Y | NR | HAART | 60 | Plaque | ACI, apremilast, topical, UVB-NB | Risankizumab 150 mg | 10.3/0 | -100% | NR/Undetectable | NR/630 | 84 | NR | NR | N | N |
| Romita 2022 [19] | 31/M | NR | NR | NR | HAART | 120 | Plaque | Apremilast | Secukinumab 300 mg | 13/0 | -100% | NR/NR | 1487/NR | 35 | NR | Genital candidiasis | N | N |
| Saeki 2015 [20] | 47/M | NR | NR | NR | HAART | 240 | Plaque | CsA, etretinate, UVB-NB, Adalimumab 40 mg to 80 mg | Ustekinumab 45 mg | 9.7/0.8 | -91.80% | 20/Stable | 755/916 | 300/120 | NR/NR | NR/NR | N/N | N/N |
| Wang 2019 [21] | 55/M | Kaposi sarcoma | NR | 156 | NR | 360 | Plaque | ACI, UVB-NB | Ustekinumab 45 mg | NR/NR | NR | 20/Stable | 212/316 | 450 | NR | NR | N | N |
| Xu 2023 [22] | NR/M (7) | NR | NR | NR | HAART (7) | NR | Plaque | NR | Secukinumab 300 mg | NR/NR | -85.7% | NR/NR | NR/NR | 365 | NR | NR | N | N |
| Xu 2023 [22] | NR/M (9) | NR | NR | NR | HAART (9) | NR | Plaque | NR | Ustekinumab 45 mg | NR/NR | -88.3% | NR/NR | NR/NR | 365 | NR | NR | N | N |
| Xu 2023 [22] | NR/M (7) | NR | NR | NR | HAART (7) | NR | Plaque | NR | Risankizumab 150 mg | NR/NR | -87.9% | NR/NR | NR/NR | 365 | NR | NR | N | N |
| This article | 64/M | Hypercholesterolemia, hypertension | Y | 48 | HAART | 120 | plaque | ACI | Tildrakizumab 200 mg | 14.3/0 | - 100% | Undetectable/ Undetectable | 991/876 | 369 | N | N | N | N |

ACI, acitretin; AE, adverse event; CsA, cyclosporine A; F, female; HAART, highly active antiretroviral therapy; HBV, hepatitis B virus; HCV, hepatitis C virus; HIV, human immunodeficiency virus; M, male; MTX, methotrexate; N, no; NR, none reported; PASI, Psoriasis Area and Severity Index; PASI 75, 75% improvement from baseline in PASI; PUVA, psoralen plus ultraviolet A phototherapy; TB, tuberculosis; TOP, topical; UVB-NB, ultraviolet-B narrowband phototherapy; Y, yes.
Data taken from Estevigno 2024 and Sood 2024.

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