**Online Supplementary table 1: Drug by drug analysis of Individual Case Safety Reports (ICSRs) by Anatomical Therapeutic Chemical (ATC) Classification**

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| --- | --- | --- | --- | --- | --- | --- |
|  | **IC025\*** | **Previously reported cases in literature and association with DIL** | **Number of ICSRs (total)** | **Female (%)**  **[N = Data availability]** | **Age at onset median (IQR)**  **[N = Data availability]** | **Median delay between treatment and autoimmune AE (in days) median (IQR)**  **[N = data availability]** |
| ATC CATEGORY A: ALIMENTARY TRACT AND METABOLISM | | | | | | |
| Phthalylsulfathiazole | 2.79 | No | 8 | 100 [8] | 43 (NA) [1] | NA [0] |
| Sulfasalazine | 2.29 | Yes (very low risk); link possible | 82 | 86 [79] | 38 (27-52) [66] | 219 (60.5-720) [33] |
| Mesalazine | 1.27 | Yes (very low risk); link possible | 35 | 81 [32] | 40 (36-59) [25] | 300 (32.5-699) [10] |
| Esomeprazole | 1.21 | Yes (very low risk); link possible | 115 | 88 [112] | 53 (45-62) [92] | 40.5 (9.75-76) [6] |
| Lansoprazole | 0.43 | Yes (no risk evaluation); link possible | 30 | 83 [29] | 60 (50-71) [24] | 31.5 (25.25-137.75) [6] |
| Omeprazole | 0.26 | Yes (very low risk); link possible | 74 | 84 [73] | 58 (46-66) [64] | 66.5 (23.5-199) [18] |
| ATC CATEGORY B: BLOOD AND BLOOD FORMING ORGANS | | | | | | |
| Epoprostenol | 1.17 | No | 24 | 95 [20] | 37 (24-48) [19] | 323 (218-457.25) [4] |
| Folic acid | 1.15 | No | 15 | 93 [15] | 43 (41-68) [5] | 365 (365-365) [1] |
| Treprostinil | 1.11 | No | 64 | 95 [64] | 40 (36-57) [46] | NA [0] |
| Romiplostim | 1.09 | No | 22 | 88 [16] | 54 (45-63) [10] | 46 (36-98) [3] |
| Ticlopidine | 0.77 | Yes (very low risk); link possible | 24 | 48 [23] | 70 (58-74) [20] | 87 (20-486) [11] |
| Iloprost | 0.51 | Yes (very low risk); link possible | 13 | 100 [11] | 54 (43-63) [10] | 11.5 (3-20) [2] |
| Selexipag | 0.45 | No | 7 | 100 [7] | 43 (41-45) [7] | NA [0] |
| Calcium chloride; Glucose; Magnesium chloride; Sodium chloride; Sodium lactate | 0.44 | No | 78 | 86 [78] | 36 (29-46) [40] | 120 (7-365) [3] |
| Blood substitutes and perfusion solutions | 0.26 | No | 58 | 93 [57] | 35 (27-55) [19] | NA [0] |
| ATC CATEGORY C: CARDIOVASCULAR SYSTEM | | | | | | |
| Procainamide | 7.48 | Yes (high risk); link definite | 518 | 38 [472] | 65 (58-73) [401] | 206.5 (61.25-395.75) [96] |
| Hydralazine | 6.63 | Yes (high risk); link definite | 444 | 66 [423] | 60 (52-67) [376] | 505 (213.5-974) [69] |
| Quinidine | 3.43 | Yes (moderate risk); link definite | 48 | 46 [48] | 69 (60-73) [43] | 131 (30-547) [23] |
| Tocainide | 3.32 | Yes (very low risk); link possible | 24 | 37 [19] | 67 (56-77) [15] | 83 (22.5-226.5) [13] |
| Acebutolol | 3.06 | Yes (very low risk); link probable | 27 | 67 [27] | 67 (57-75) [24] | 891 (277-2552) [11] |
| Labetalol | 2.57 | Yes (very low risk); link probable | 31 | 80 [25] | 58 (41-70) [25] | 926 (150-1825) [11] |
| Methyldopa | 2.53 | Yes (low risk); link definite | 51 | 87 [45] | 62 (51-71) [45] | 2240 (1577-3422) [3] |
| Hydralazine; Hydrochlorothiazide; Reserpine | 2.40 | Hydralazine (high risk); link definite Hydrochlorothiazide (very low risk); link probable  Reserpine (very low risk); link possible | 7 | 60 [5] | 58 (50-64) [4] | 200 (56-344) [2] |
| Disopyramide | 2.24 | Yes (no risk evaluation); link possible | 19 | 80 [15] | 68 (38-71) [9] | 251 (9.5-692) [4] |
| Ambrisentan | 1.95 | No | 210 | 98 [208] | 50 (40-62) [145] | 699 (80.5-1242) [9] |
| Dihydralazine | 1.91 | Yes (high risk); link definite | 6 | 83 [6] | 44 (43-58) [5] | 73 (27-119) [2] |
| Lovastatin | 1.72 | Yes (very low risk); link probable | 55 | 72 [47] | 63 (52-72) [43] | 122 (29-396) [19] |
| Bosentan | 1.70 | No | 92 | 94 [72] | 45 (36-56) [71] | 408 (145-1703) [21] |
| Carteolol | 1.52 | No | 6 | 67 [6] | 63 (59-82) [6] | 288.5 (42-535) [2] |
| Practolol | 1.41 | No | 8 | 63 [8] | 58 (47-68) [7] | NA [0] |
| Propranolol | 1.40 | Yes (very low risk); link probable | 46 | 86 [43] | 52 (41-60) [37] | 31 (1-1608.5) [13] |
| Flecainide | 1.18 | No | 17 | 59 [17] | 63 (43-77) [15] | 365 (61.5-891) [9] |
| Macitentan | 1.11 | No | 29 | 100 [29] | 47 (37-55) [28] | 28 (NA) [1] |
| Celiprolol | 1.00 | Yes (no risk evaluation); link possible | 8 | 100 [8] | 61 (57-71) [8] | 727 (15.75-1966.25) [4] |
| Propafenone | 0.97 | Yes (no risk evaluation); link possible | 12 | 55 [11] | 63 (54-72) [8] | 86 (15-334) [3] |
| Hydrochlorothiazide; Telmisartan | 0.83 | Hydrochlorothiazide (very low risk); link probable | 9 | 67 [9] | 50 (35-76) [4] | NA [0] |
| Hydrochlorothiazide; Triamterene | 0.81 | Hydrochlorothiazide (very low risk); link probable | 17 | 81 [16] | 60 (48-71) [12] | 3506.5 (3499-3514) [2] |
| Pravastatin | 0.78 | Yes (very low risk); link probable | 33 | 59 [27] | 65 (50-73) [25] | 252 (45.5-714.5) [5] |
| Hydrochlorothiazide; Methyldopa | 0.75 | Hydrochlorothiazide (very low risk); grad link probable Methyldopa (low risk); link definite | 4 | 67 [3] | 55 (45-60) [3] | 4244 (NA) [1] |
| Oxprenolol | 0.75 | Yes (very low risk); link probable | 6 | 33 [6] | 66 (56-72) [6] | 189 (6-1159.5) [5] |
| Atenolol | 0.65 | Yes (very low risk); link probable | 43 | 79 [39] | 59 (47-67) [37] | 592 (257.75-677.75) [12] |
| Fluvastatin | 0.60 | Yes (very low risk); link probable | 15 | 54 [13] | 66 (52-69) [12] | 110 (83-877.25) [4] |
| Altizide; Spironolactone | 0.58 | Spironolactone (very low risk); link possible | 6 | 83 [6] | 67 (52-76) [6] | NA [0] |
| Gemfibrozil | 0.54 | Yes (very low risk); link possible | 20 | 88 [16] | 60 (50-63) [15] | 700 (363.5-1236.5) [5] |
| Prazosin | 0.54 | No | 11 | 90 [10] | 78 (55-84) [7] | 51 (14-806) [3] |
| Mexiletine | 0.54 | No | 6 | 20 [5] | 66 (44-69) [4] | 204 (56-2198.5) [4] |
| Riociguat | 0.45 | No | 9 | 78 [9] | 52 (41-62) [9] | NA [0] |
| Bisoprolol; Hydrochlorothiazide | 0.35 | Hydrochlorothiazide (very low risk); link probable | 5 | 80 [5] | 64 (44-81) [4] | 62 (49-730) [3] |
| Pindolol | 0.31 | Yes (very low risk); link probable | 6 | 67 [6] | 69 (56-73) [6] | 1344 (1006-6556) [3] |
| Captopril | 0.20 | Yes (low risk); link possible | 33 | 63 [30] | 61 (54-69) [28] | 4025 (1607.25-5671.75) [4] |
| Diltiazem | 0.14 | Yes (very low risk); link possible | 28 | 68 [28] | 74 (61-81) [25] | 243.5 (139-348) [2] |
| Alprenolol | 0.06 | No | 3 | 100 [3] | 54 (46-69) [3] | 21 (NA) [1] |
| Fosinopril | 0.04 | No | 7 | 20 [5] | 71 (62-80) [2] | 5875 (NA) [1] |
| Simvastatin | 0.03 | Yes (very low risk); link probable | 60 | 67 [54] | 66 (56-74) [46] | 296 (46-384) [21] |
| ATC CATEGORY D : DERMATOLOGICALS | | | | | | |
| Terbinafine | 2.33 | Yes (very low risk); link definite | 107 | 75 [102] | 55 (45-65) [91] | 42 (18-74) [47] |
| Desoximetasone | 1.12 | No | 5 | 100 [5] | 43 (22-60) [3] | NA [0] |
| Griseofulvin | 0.51 | Yes (very low risk); link possible | 9 | 67 [9] | 52 (33-59) [7] | 10.5 (0-24) [4] |
| Imiquimod | 0.17 | Yes (no risk evaluation); link possible | 8 | 75 [8] | 66 (52-81) [7] | 44 (NA) [1] |
| Isotretinoin | 0.16 | No | 61 | 88 [60] | 23 (17-33) [36] | 133.5 (28.25-462.5) [28] |
| ATC CATEGORY G: GENITO-URINARY SYSTEM AND SEX HORMONES | | | | | | |
| Estrogens conjugated | 1.35 | Yes (very low risk); link possible | 87 | 100 [86] | 50 (43-55) [20] | NA [0] |
| Estrogens conjugated; Medroxyprogesterone | 1.16 | Yes (very low risk); link possible | 51 | 100 [51] | 58 (53-61) [6] | 181 (91-1826) [3] |
| Ethinylestradiol; Etonogestrel | 0.94 | Yes (very low risk); link possible | 39 | 100 [37] | 27 (25-34) [18] | NA [0] |
| Ethinylestradiol; Levonorgestrel | 0.51 | Yes (very low risk); link possible | 33 | 100 [33] | 26 (21-34) [26] | 59 (2-1232) [9] |
| Estrogens | 0.37 | Yes (very low risk); link possible | 4 | 100 [4] | NA [0] | NA [0] |
| Medroxyprogesterone | 0.31 | No | 51 | 100 [51] | 44 (27-54) [11] | 4383 (678-5158.5) [5] |
| Cyproterone; Ethinylestradiol | 0.21 | Yes (very low risk); link possible | 9 | 100 [9] | 21 (19-32) [6] | 174 (14-334) [2] |
| Nomegestrol | 0.01 | Yes (very low risk); link possible | 3 | 100 [3] | 35 (23-36) [3] | 30.5 (0-61) [2] |
| ATC CATEGORY H: SYSTEMIC HORMONAL PREPARATIONS (EXCLUDING SEX HORMONES AND INSULINS) | | | | | | |
| Corticotropin | 2.92 | No | 39 | 97 [38] | 45 (42-51) [28] | NA [0] |
| Propylthiouracil | 2.45 | Yes (low risk); link probable | 29 | 92 [26] | 37 (27-59) [25] | 151 (31-304) [11] |
| Thiamazole | 1.60 | Yes (no risk evaluation); link possible | 29 | 92 [25] | 33 (20-44) [20] | 22 (5.5-259.5) [9] |
| Teriparatide | 0.15 | No | 103 | 98 [103] | 64 (57-74) [64] | 21 (0-224.5) [9] |
| Carbimazole | 0.01 | Yes (no risk evaluation); link possible | 9 | 75 [8] | 48 (36-61) [8] | 32.5 (19.5-78.5) [4] |
| ATC CATEGORY J: ANTIINFECTIVES FOR SYSTEMIC USE | | | | | | |
| Minocycline | 4.75 | Yes (very low risk); link definite | 280 | 81 [263] | 20 (17-32) [236] | 184 (73-685) [63] |
| Hepatitis b vaccine | 1.96 | Yes (no risk evaluation); link possible | 296 | 88 [281] | 31 (21-43) [260] | 45 (9-306) [189] |
| HPV vaccine | 1.59 | Yes (no risk evaluation); link possible | 215 | 98 [215] | 16 (14-19) [174] | 61.5 (15-159) [106] |
| Lyme disease vaccine | 1.39 | No | 11 | 73 [11] | 47 (28-51) [10] | 57 (24-607.5) [4] |
| Hepatitis a vaccine; Hepatitis b vaccine | 0.88 | No | 20 | 85 [20] | 33 (27-48) [17] | 33 (1-241) [10] |
| Isoniazid | 0.52 | Yes (moderate risk); link definite | 47 | 63 [46] | 48 (30-63) [44] | 79 (21-207) [27] |
| Vaccines | 0.27 | No | 2 | 100 [1] | 41 (NA) [1] | 253 (NA) [1] |
| Nitrofurantoin | 0.13 | Yes (very low risk); link possible | 24 | 90 [20] | 70 (50-76) [14] | 3 (1-7) [3] |
| ATC CATEGORY L: ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS | | | | | | |
| Infliximab | 3.39 | Yes (very low risk); link possible | 1055 | 81 [967] | 47 (37-58) [598] | 274.5 (110.25-597.5) [90] |
| Adalimumab | 1.66 | Yes (very low risk); link possible | 926 | 86 [889] | 48 (38-57) [496] | 314 (92-659) [127] |
| Certolizumab pegol | 1.58 | Yes (very low risk); link possible | 74 | 96 [67] | 44 (36-56) [39] | 99 (66.5-324) [9] |
| Abatacept | 1.40 | No | 71 | 88 [67] | 52 (42-64) [27] | 141 (108.5-482) [5] |
| Leflunomide | 1.38 | Yes (no risk evaluation); link possible | 43 | 98 [40] | 58 (43-66) [21] | 87 (32.5-205) [13] |
| Golimumab | 1.22 | Yes (very low risk); link possible | 47 | 87 [47] | 53 (43-262) [30] | 127 (30.5-202) [9] |
| Etanercept | 1.07 | Yes (very low risk); link possible | 691 | 89 [659] | 51 (43-61) [501] | 289.5 (81.5-782) [128] |
| Interferon beta-1a | 0.79 | Yes (very low risk); link possible | 208 | 92 [205] | 48 (40-55) [128] | 734.5 (158.5-1773) [28] |
| Eculizumab | 0.70 | No | 41 | 63 [24] | 23 (20-43) [5] | NA [0] |
| Interferon alfa | 0.60 | Yes (very low risk); link probable | 6 | 60 [5] | 43 (40-46) [6] | 181 (14-213) [3] |
| Interferon beta-1b | 0.48 | Yes (very low risk); link possible | 41 | 93 [40] | 44 (37-56) [37] | 1452 (570.5-2981.25) [10] |
| Efalizumab | 0.48 | Yes (no risk evaluation); link possible | 8 | 100 [8] | 29 (27-30) [2] | 30 (8-305) [3] |
| Tocilizumab | 0.45 | No | 36 | 92 [36] | 51 (41-65) [21] | 179 (115.5-463.25) [10] |
| Anastrozole | 0.36 | Yes (no risk evaluation); link possible | 20 | 100 [19] | 60 (49-65) [14] | 16 (2.5-123.5) [5] |
| Interferon alfa-2b | 0.11 | Yes (very low risk); link possible | 19 | 61 [18] | 46 (38-54) [17] | 322 (170.5-806) [9] |
| ATC CATEGORY M: MUSCULO-SKELETAL SYSTEM | | | | | | |
| Penicillamine | 2.55 | Yes (low risk): link probable | 26 | 84 [25] | 45 (27-55) [25] | 730 (308.5-1462.5) [13] |
| Alendronic acid | 0.81 | No | 76 | 99 [69] | 57 (46-65) [38] | 263 (72-2557) [19] |
| Rofecoxib | 0.58 | No | 90 | 82 [90] | 51 (41-60) [86] | 718 (147.5-1409.5) [46] |
| Alendronic acid; Colecalciferol | 0.47 | No | 10 | 100 [9] | 52 (48-64) [5] | NA [0] |
| Denosumab | 0.07 | No | 60 | 100 [58] | 67 (59-72) [36] | 83 (15-151) [2] |
| ATC CATEGORY N: NERVOUS SYSTEM | | | | | | |
| Ethosuximide | 4.60 | Yes (very low risk); link probable | 42 | 69 [42] | 8 (7-12) [41] | 122 (33.25-322.75) [24] |
| Carbamazepine | 2.07 | Yes (low risk); link probable | 204 | 78 [192] | 32 (21-45) [174] | 273 (55-836.5) [57] |
| Primidone | 1.68 | Yes (very low risk); link probable | 13 | 77 [13] | 54 (31-70) [12] | 170 (5-335) [2] |
| Oxcarbazepine | 1.52 | No | 38 | 74 [34] | 28 (19-52) [27] | 240 (90-1578) [11] |
| Phenytoin | 1.24 | Yes (very low risk); link probable | 105 | 73 [101] | 42 (27-61) [88] | 37 (7-1736.5) [21] |
| Felbamate | 1.22 | No | 9 | 88 [8] | 31 (19-42) [8] | 80 (6.5-220) [5] |
| Oxybate sodium | 0.87 | No | 60 | 93 [60] | 41 (36-52) [32] | NA [0] |
| Lamotrigine | 0.77 | Yes (no risk evaluation); link possible | 77 | 88 [72] | 38 (26-48)  [52] | 108 (7-386.5) [29] |
| Pregabalin | 0.60 | No | 128 | 92 [122] | 55 (45-62) [72] | 259 (11-365) [7] |
| Phenelzine | 0.44 | Yes (no risk evaluation); link possible | 8 | 100 [8] | 40 (36-43) [5] | 305 (NA) [1] |
| Perphenazine | 0.40 | Yes (no risk evaluation); link possible | 7 | 100 [5] | 37 (18-65) [4] | 2221.5 (274-4169) [2] |
| Fluoxetine | 0.37 | No | 85 | 91 [69] | 40 (33-48) [60] | 153 (21-338) [15] |
| Cevimeline | 0.36 | No | 3 | 100 [3] | 37 (37-37) [1] | NA [0] |
| Chlorpromazine | 0.33 | Yes (low risk); link definite | 17 | 53 [17] | 51 (36-56) [13] | 147 (26.5-1436.75) [4] |
| Cinnarizine | 0.29 | Yes (no risk evaluation); link possible | 5 | 100 [5] | 46 (32-59) [2] | 65 (61-69) [2] |
| Valproic acid | 0.25 | Yes (very low risk); link probable | 73 | 76 [66] | 34 (26-44) [55] | 312 (16.25-912.5) [22] |
| ATC CATEGORY R: RESPIRATORY SYSTEM | | | | | | |
| Cetirizine | 0.12 | No | 28 | 100 [26] | 57 (45-65) [9] | 31 (31-31) [2] |
| NON CLASSIFIED | | | | | | |
| Aesculus hippocastanum; Convallaria majalis; Drimia maritima; Oleandrin; Phenopyrazone; Yeast | 4.98 | No | 27 | 93 [27] | 54 (45-61) [21] | 182 (99-797.25) [8] |

\*IC025: a positive IC025 (>0) value (which is the lower end of the 95% credibility interval for the Information Component) is the threshold used in statistical signal detection in VigiBase. IQR: Interquartile range