

## Supplemental information:

### Composition of breakout groups

In former collaborative projects, [1, 2] there were always lively discussions or even fierce debates among glucocorticoid "supporters" and "opponents" when it came to the theme of risks & benefits of long-term glucocorticoid use. This observation was actually one of the driving forces to initiate the work on this project. Therefore, the logical consequence was to explicitly invite these supporters and opponents to become members of this EULAR task force group – and all accepted this invitation. Moreover, the group was completed by “neutrals” (i.e. people known for their balanced view, not favouring any pro or con position, as they have expressed in publications, statements, talks etc.), health professionals and patients, who were equally assigned to the 4 breakout groups (as listed in table S1 below – see below). The conveners allocated invited participants to these roles. Each member was aware of their allocation and was happy to represent this position through the project.

breakout group	adverse effect	Glucocorticoid: “supporters”	“opponents”	“neutrals”	health professionals	patients
1	osteoporosis	M. Cutolo	B. Dasgupta	F. Buttgerit	A. Ladefoged de Thurah	M. de Wit
2	hyperglycaemia & DM	J.W.J. Bijlsma	H.U.Scherer	D. Ray	A. Ladefoged de Thurah	D. Wiek
3	CVD	M. Boers	R. Seror	J. Listing	R. Geenen	N.Caeyers
4	infections	C.M. Spies	W. Dixon	K. Winthrop	R. Geenen	A. Kent

**Table S1 Task Force breakout groups.** The task force members were assigned to 4 breakout groups including at least one glucocorticoid “supporter”, “opponent”, “neutral”, health professional and patient, respectively, focussing on the 4 most worrisome glucocorticoid adverse effects: osteoporosis, hyperglycaemia/diabetes mellitus (DM), cardiovascular diseases (CVD), and infections.

1. Smolen JS, Landewe R, Breedveld FC, Buch M, Burmester G, Dougados M, et al. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2013 update. *Annals of the rheumatic diseases*. 2014 Mar; 73(3):492-509.
2. Dejaco C, Singh YP, Perel P, Hutchings A, Camellino D, Mackie S, et al. 2015 Recommendations for the management of polymyalgia rheumatica: a European League Against Rheumatism/American College of Rheumatology collaborative initiative. *Annals of the rheumatic diseases*. 2015 Oct; 74(10):1799-1807.

### Systemic literature review (SLR):

A SLR of the Medline and Cochrane Library databases was performed (see figure S1 for details on search terms, number of results, inclusion and exclusion criteria). Keywords (for both databases) included the thesauri, text words, abbreviations and truncated text words (excerpt: glucocorticoid, steroid, safety, adverse, rheumatoid, osteoporosis, fracture, diabetes, metabolic, cardiovascular, hypertension, infection etc.).

The references identified were carefully screened for title and abstract, whereas additional articles were retrieved by searching the reference lists of guidelines and

reviews. This review was limited to articles published in English language. For the sake of actuality and in agreement with the experts, only articles published within the recent 5 years were selected for the discussion together with selected older outstanding landmark papers, [3-17] including earlier EULAR recommendations on GC management. [1, 12, 18-20]

The searches yielded 32.040 references: Medline (29798), Cochrane library (2099 trials; 143 reviews. In accordance with inclusion and exclusion criteria, a further screening of titles and abstracts, assessment of relevance and removal of duplicates yielded a total of 179 papers (167 in PubMed and 12 in Cochrane database). The results were classified according to the four most worrisome AE of GC-therapy as well as general literature on GC induced AE. After addition of landmark papers, 194 papers were provided for the meeting comprising literature on GC induced AE in general (55 articles), with regard to bone (58 articles), GC-induced hyperglycaemia & diabetes mellitus (27 articles), CVD (26 articles), and infections (28 articles) (see supplemental tables).

3. Da Silva JA, Jacobs JW, Kirwan JR, Boers M, Saag KG, Ines LB, et al. Safety of low dose glucocorticoid treatment in rheumatoid arthritis: published evidence and prospective trial data. *Annals of the rheumatic diseases*. 2006 Mar; 65(3):285-293.
4. Curtis JR, Saag KG. Prevention and treatment of glucocorticoid-induced osteoporosis. *Current osteoporosis reports*. 2007 Mar; 5(1):14-21.
5. Boers M, Nurmohamed MT, Doelman CJ, Lard LR, Verhoeven AC, Voskuyl AE, et al. Influence of glucocorticoids and disease activity on total and high density lipoprotein cholesterol in patients with rheumatoid arthritis. *Annals of the rheumatic diseases*. 2003 Sep; 62(9):842-845.
6. Saag KG, Criswell LA, Sems KM, Nettleman MD, Kolluri S. Low-dose corticosteroids in rheumatoid arthritis. A meta-analysis of their moderate-term effectiveness. *Arthritis and rheumatism*. 1996 Nov; 39(11):1818-1825.
7. Raul Ariza-Andraca C, Barile-Fabris LA, Frati-Munari AC, Baltazar-Montufar P. Risk factors for steroid diabetes in rheumatic patients. *Archives of medical research*. 1998 Autumn; 29(3):259-262.
8. Van Staa TP, Leufkens HG, Abenhaim L, Zhang B, Cooper C. Use of oral corticosteroids and risk of fractures. *Journal of bone and mineral research : the official journal of the American Society for Bone and Mineral Research*. 2000 Jun; 15(6):993-1000.
9. Doran MF, Crowson CS, Pond GR, O'Fallon WM, Gabriel SE. Frequency of infection in patients with rheumatoid arthritis compared with controls: a population-based study. *Arthritis and rheumatism*. 2002 Sep; 46(9):2287-2293.
10. van Everdingen AA, Jacobs JW, Siewertsz Van Reesema DR, Bijlsma JW. Low-dose prednisone therapy for patients with early active rheumatoid arthritis: clinical efficacy, disease-modifying properties, and side effects: a randomized, double-blind, placebo-controlled clinical trial. *Annals of internal medicine*. 2002 Jan 1; 136(1):1-12.
11. Souverein PC, Berard A, Van Staa TP, Cooper C, Egberts AC, Leufkens HG, et al. Use of oral glucocorticoids and risk of cardiovascular and cerebrovascular disease in a population based case-control study. *Heart*. 2004 Aug; 90(8):859-865.

12. Hoes JN, Jacobs JW, Boers M, Boumpas D, Buttgerit F, Caeyers N, et al. EULAR evidence-based recommendations on the management of systemic glucocorticoid therapy in rheumatic diseases. *Annals of the rheumatic diseases*. 2007 Dec; 66(12):1560-1567.
13. Davis JM, 3rd, Maradit Kremers H, Crowson CS, Nicola PJ, Ballman KV, Thorneau TM, et al. Glucocorticoids and cardiovascular events in rheumatoid arthritis: a population-based cohort study. *Arthritis and rheumatism*. 2007 Mar; 56(3):820-830.
14. Sambrook PN, Eisman JA, Yeates MG, Pocock NA, Eberl S, Champion GD. Osteoporosis in rheumatoid arthritis: safety of low dose corticosteroids. *Annals of the rheumatic diseases*. 1986 Nov; 45(11):950-953.
15. Gurwitz JH, Bohn RL, Glynn RJ, Monane M, Mogun H, Avorn J. Glucocorticoids and the risk for initiation of hypoglycemic therapy. *Archives of internal medicine*. 1994 Jan 10; 154(1):97-101.
16. Coyne P, Hamilton J, Heycock C, Saravanan V, Coulson E, Kelly CA. Acute lower respiratory tract infections in patients with rheumatoid arthritis. *The Journal of rheumatology*. 2007 Sep; 34(9):1832-1836.
17. Maxwell SR, Moots RJ, Kendall MJ. Corticosteroids: do they damage the cardiovascular system? *Postgraduate medical journal*. 1994 Dec; 70(830):863-870.
18. Duru N, van der Goes MC, Jacobs JW, Andrews T, Boers M, Buttgerit F, et al. EULAR evidence-based and consensus-based recommendations on the management of medium to high-dose glucocorticoid therapy in rheumatic diseases. *Annals of the rheumatic diseases*. 2013 Dec; 72(12):1905-1913.
19. van der Goes MC, Jacobs JW, Boers M, Andrews T, Blom-Bakkens MA, Buttgerit F, et al. Patient and rheumatologist perspectives on glucocorticoids: an exercise to improve the implementation of the European League Against Rheumatism (EULAR) recommendations on the management of systemic glucocorticoid therapy in rheumatic diseases. *Annals of the rheumatic diseases*. 2010 Jun; 69(6):1015-1021.
20. van der Goes MC, Jacobs JW, Boers M, Andrews T, Blom-Bakkens MA, Buttgerit F, et al. Monitoring adverse events of low-dose glucocorticoid therapy: EULAR recommendations for clinical trials and daily practice. *Annals of the rheumatic diseases*. 2010 Nov; 69(11):1913-1919.

# SLR: Search terms, inclusion and exclusion criteria and number of results

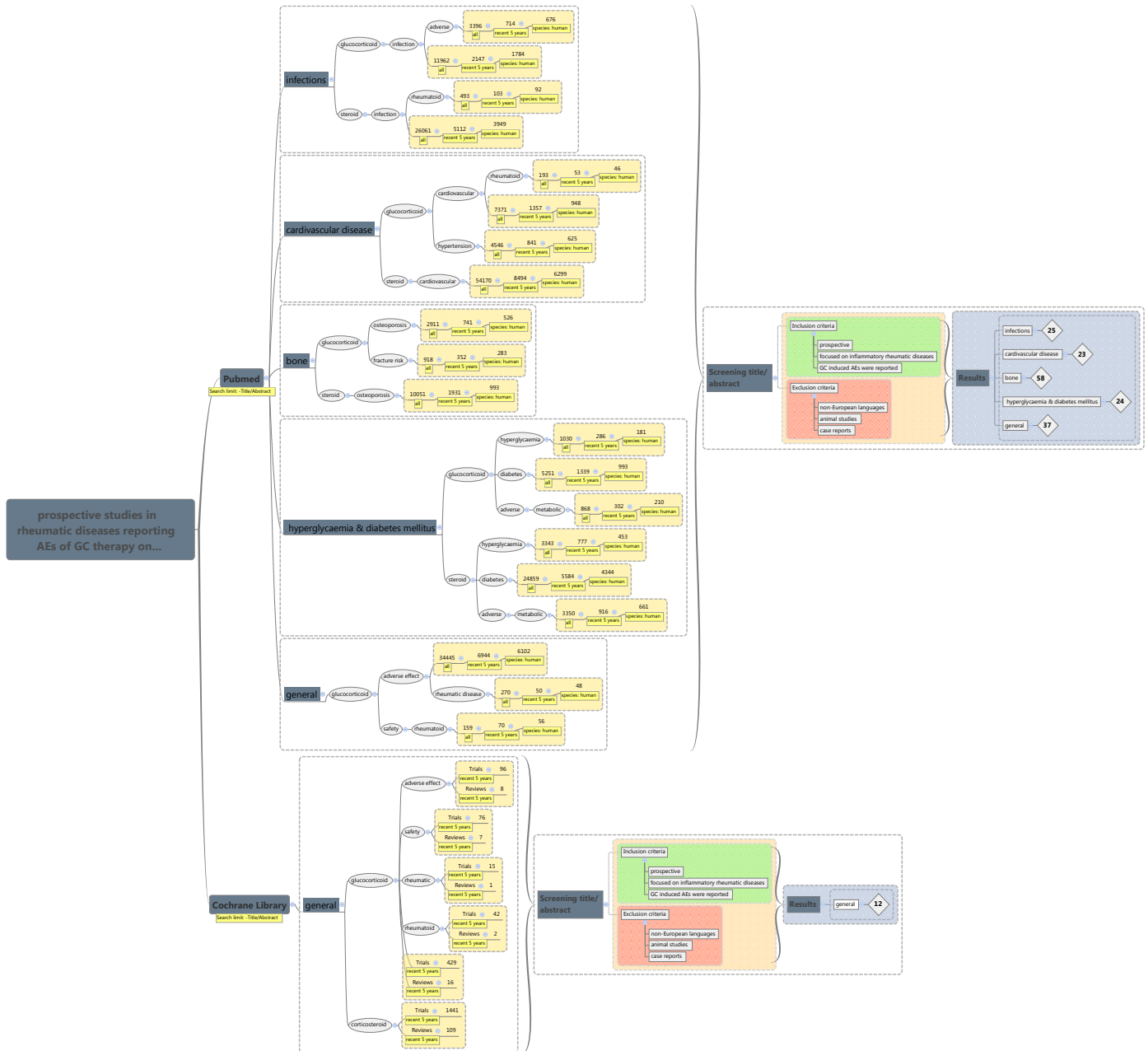


Figure S1: Search terms, inclusion and exclusion criteria and number of results of the systematic literature review (SLR). In advance to the EULAR Task Force meeting, a SLR was performed using the Medline and Cochrane Library databases. The SLR was focussed on the four most worrisome on cardiovascular disease (CVD), effects on bone, GC-induced hyperglycaemia & diabetes mellitus (DM) and infections. The articles identified were carefully screened for title and abstract.

## SLR: Tabular overview on literature provided to the task force members

First Author	Journal	Year	PMID
Alten, R.	J Rheumatol	2010	20682671
Annan, D.	JAMA	2009	19509383
Arena, C.	Br J Dermatol	2010	20518780
Bakker, M.F.	Ann Intern Med	2012	22393128
Bijlsma, J.W.J.	Ann N Y Acad Sci	2014	24641732
Brown, E.S.	Ann N Y Acad Sci	2010	20580827
Buttgereit, F.	Ann Rheum Dis	2002	12117678
Buttgereit, F.	Lancet	2008	18207016
Buttgereit, F.	Ann Rheum Dis	2011	21908455
Buttgereit, F.	Ann Rheum Dis	2013	22562974
Da Silva, J.A.	Ann Rheum Dis	2006	16107513
Duru, N.	Ann Rheum Dis	2013	23873876
Ethgen, O.	Curr Med Res Opin	2013	23790244
Fardet, L.	Rheumatology (Oxford)	2011	21393338
Fardet, L.	J Clin Psychiatry	2012	22764363
Fardet, L.	Clin Endocrinol (Oxf)	2013	22268638
Fardet, L.	J Clin Psychiatry.	2013	23656853
Gaujoux-Viala, C.	Ann N Y Acad Sci	2014	24827544
Gonzalez, A.	Arthritis Rheum	2007	17968923
Gorter, S.L.	Ann Rheum Dis	2010	20448288
Hoes, J.N.	Ann Rheum Dis	2007	17660219
Hoes, J.N.	Ann Rheum Dis	2009	19066177
Huscher, D.	Ann Rheum Dis	2009	18684744
Hwang, Y.G.	Clin Exp Rheumatol	2011	22018194
Jurgens, M.S.	Arthritis Care Res (Hoboken)	2013	22807253
Kavanaugh, A.	Rheumatology (Oxford)	2014	24729402
Klaasen, R.	Ann Rheum Dis	2012	22440821
Leuppi, J. D.	JAMA	2013	23695200
Listing, J.	Ann Rheum Dis	2015	24291654
Malysheva, O.	Clin Exp Rheumatol	2011	22018195
Mazzantini, M.	J Rheumatol	2012	22247343
McDonough, A. K.	Curr Opin Rheumatol	2008	18349741
Neovius, M.	Ann Rheum Dis	2011	21149495
Pincus, T.	Clin Exp Rheumatol	2011	22018199
Pincus, T.	Bull NYU Hosp Jt Dis	2012	23259653
Pisu, M.	Rheumatology (Oxford)	2005	15769791
Ramiro, S.	Ann Rheum Dis	2014	24401994
Rau, R.	Expert Opin Pharmacother.	2014	24856989
Ravindran, V.	Rheumatology (Oxford)	2009	19447767
Ruiz-Irastorza, G.	Rheumatology (Oxford)	2012	22271756
Saag, K.G.	Am J Med	1994	8109596
Saag, K.G.	Bull NYU Hosp Jt Dis	2012	23259654
Sadr-Azodi, O.	JAMA Intern Med	2013	23440105
Scott, D.L.	Lancet	2010	20870100
Seguro, L.P.	Autoimmun Rev	2013	23261815
Shiff, N.J.	Arthritis Care Res (Hoboken).	2013	22826190
Smits, N.A.	Clin Exp Rheumatol	2011	22018191
Tominaga, K.	BMC Gastroenterol	2013	23452668
van der Goes, M.C.	Ann Rheum Dis	2010	19762359
van der Goes, M.C.	Ann Rheum Dis	2010	20693273
van der Goes, M.C.	Clin Exp Rheumatol	2011	22018196
van der Goes, M.C.	Clin Exp Rheumatol	2014	24480192
van Everdingen, A. A.	Ann Intern Med	2002	11777359
van Tuyl, L.H.	Ann Rheum Dis	2010	19451137
Wassenberg, S.	Clin Exp Rheumatol	2011	22018187

**Table S2 General literature on glucocorticoid induced adverse effects.** A systematic literature review of the Medline and Cochrane Library databases was performed. Considering the inclusion and exclusion criteria, removal of duplicates and after addition of outstanding landmark papers the search yielded in 55 articles reporting on glucocorticoid induced adverse effects in general, which were provided to the task force members in preparation to the meeting.

First Author	Journal	Year	PMID
Al-Osail, A.M.	Singapore Med J	2010	21221500
Arampatzis, S.	Rheumatology (Oxford)	2013	23882110
Baschant, U.	Mol Cell Endocrinol	2013	23769823
Braith, R. W.	J Heart Lung Transplant	2003	14550817
Buehring, B.	J Allergy Clin Immunol	2013	24176682
Canalis, E.	Osteoporos Int	2007	17566815
Compston, J.	Nat Rev Rheumatol.	2010	20125175
Compston, J.	Clin Endocrinol (Oxf)	2011	21470278
Curtis, J. R.	Curr Osteoporos Rep	2007	17320023
Dao, H. H.	Clin Rheumatol	2011	21547438
de Vries, F.	Arthritis Rheum	2007	17195223
den Uyl, D.	Curr Rheumatol Rep	2011	21365209
Ghazi, M.	Osteoporos Int	2012	21350894
Grossman, J.M.	Arthritis Care Res (Hoboken)	2010	20662044
Gruppen, M.P.	Nephrol Dial Transplant	2013	23640430
Guañabens, N.	Curr Osteoporos Rep	2014	24488619
Hafsröm, I.	Ann Rheum Dis	2009	18420939
Henneicke, H.	Trends Endocrinol Metab	2014	24418120
Hoes, J.N.	Rheumatology (Oxford)	2011	21852299
Ibañez, M.	Arthritis Res Ther	2010	20331862
Jacobs, J.	Osteoporos Int	2013	23052940
Kawai, V. K.	Arthritis Care Res (Hoboken)	2013	23281339
Kirwan, J.R.	N Engl J Med	1995	7791815
Lee, S.G.	Int J Rheum Dis	2012	22709491
Lems, W.F.	Ann N Y Acad Sci	2014	24739059
Li, E.K.	Arthritis Res Ther	2010	20964867
Majumdar, S.R.	J Clin Endocrinol Metab	2012	22298803
Majumdar, S.R.	Osteoporos Int	2013	23572142
Majumdar, S.R.	J Rheumatol	2013	23818715
Maziotti, G.	Am J Med	2010	20920685
McCloskey, E.	Clin Biochem	2012	22579965
Mitra, R.	PM R	2011	21570035
Mok, C. C.	Ann Rheum Dis	2011	21187295
Patschan, D.	Bone	2011	11728918
Pereira, R.M.	Clinics (Sao Paulo)	2010	21243296
Pereira, R.M.	Rev Bras Reumatol	2012	22885424
Ramsey-Goldman, R.	Arthritis Rheum	1999	10323443
Saag, K.G.	J Rheumatol	2013	24085752
Saag, K.G.	Ann N Y Acad Sci	2014	24815076
Sambrook, P. N.	Ann Rheum Dis	1986	3789829
Sambrook, P. N.	Ann Rheum Dis	1989	2774695
Santiago, T.	Ann N Y Acad Sci	2014	24814757
Schett, G.	Ann Rheum Dis	2010	20650876
Seguro, L.P.	Autoimmun Rev	2013	23261815
Seibel, M.J.	Lancet Diabetes Endocrinol	2013	24622268
Sugiyama, T.	Gend Med	2010	20638627
Teitelbaum, S. L.	Arthritis Rheum	2011	21279986
Teitelbaum, S. L.	Nat Rev Endocrinol	2012	22688626
Ton, F.N.	J Bone Miner Res	2005	15746991
Tóth, M.	Clin Endocrinol (Oxf)	2013	23452135
van der Goes, M. C.	Osteoporos Int	2013	23011680
van Staa, T. P.	J Bone Miner Res	2000	10841167
van Staa, T. P.	Osteoporos Int	2002	12378366
van Staa, T. P.	Arthritis Rheum	2003	14613287
Vanderoost, J.	Calcif Tissue Int	2012	23187898
Vis, M.	Osteoporos Int	2013	23775419
Weinstein, R.S.	N Engl J Med	2011	21732837
Weinstein, R.S.	Endocrinol Metab Clin North Am	2012	22877431

**Table S3 Literature on glucocorticoid induced adverse effects on bone.** A systematic literature review of the Medline and Cochrane Library databases was performed. Considering the inclusion and exclusion criteria, removal of duplicates and after addition of outstanding landmark papers the search yielded in 58 articles reporting on glucocorticoid induced adverse effects on bone, which were provided to the experts in preparation to the meeting.

First Author	Journal	Year	PMID
Bismuth, E.	Horm Res Paediatr	2010	20407232
Burt, M.G.	Rheumatology (Oxford)	2012	22332121
da Cunha, V.R.	Rev Bras Reumatol	2011	21625814
den Uyl, D.	Arthritis Rheum	2012	21953589
Diabetes Prevention Program Research Group	Diabetes Care	2012	22442395
Fong, A.C.	Diabetes Res Clin Pract	2013	23298665
Gathercole, L.L.	J Steroid Biochem Mol Biol	2010	20347978
Gurwitz, J. H.	Arch Intern Med	1994	8267494
Hoes, J.N.	Ann Rheum Dis	2011	21908880
Ito, S.	Mod Rheumatol	2014	24261759
Miller, S.E.	Postgrad Med J	1964	14230307
Penesová, A.	Physiol Res	2013	23173679
Petersons, C.J.	Diabetes Care	2013	23670996
Raul Ariza-Andraca, C.	Arch Med Res	1998	9775461
Rizza, R.A.	J Clin Endocrinol Metab	1982	7033265
Rostom, S.	BMC Musculoskelet Disord	2013	23621997
Solomon, D. H.	Arthritis Rheum	2004	15529391
Su, C. C.	J Rheumatol	2013	23818711
Tappy, L.	J Clin Endocrinol Metab	1994	7962275
Tatsuno, I.	J Clin Endocrinol Metab	2009	19258412
Taylor, E.N.	Diabetes Care	2006	16644638
Tounian, P.	Am J Physiol	1997	9277384
van Raalte, D.H.	Diabetologia	2011	21562755
van Raalte, D.H.	Eur J Clin Invest	2009	19200161
Wajngot, A.	Proc Natl Acad Sci U S A	1992	1631088
Wasko, M. C.	JAMA	2007	17622600
Zeng, Y. J.	Lupus	2010	20693192

**Table S4 Literature on glucocorticoid induced hyperglycaemia & diabetes mellitus.** A systematic literature review of the Medline and Cochrane Library databases was performed. Considering the inclusion and exclusion criteria, removal of duplicates and after addition of outstanding landmark papers the search yielded in 27 articles reporting on glucocorticoid induced hyperglycaemia & diabetes mellitus, which were provided to the task force members in preparation to the meeting.

First Author	Journal	Year	PMID
Aviña-Zubieta, J.A.	Ann Rheum Dis	2011	21367762
Aviña-Zubieta, J.A.	Rheumatology (Oxford)	2013	23192907
Bartoloni, E.	J Rheumatol	2012	22859536
Boers, M.	Ann Rheum Dis	2003	12922956
Davis, J. M., 3rd	Arthritis Rheum	2007	17330254
del Rincon, I.	Arthritis Rheumatol	2014	24504798
Dessein, P.H.	J Rheumatol	2004	15124244
Fardet, L.	BMJ	2012	22846415
Greenberg JD	Ann Rheum Dis	2011	21109516
Johannesdottir, S. A.	JAMA Intern Med	2013	23546607
Ku, I. A.	Circ J	2009	19430165
Maxwell, S. R.	Postgrad Med J	1994	7870631
Myasoedova, E.	J Rheumatol	2011	21572155
Nussinovitch, U.	Curr Pharm Des	2010	20977421
Panoulas, V.F.	Rheumatology (Oxford)	2008	18077493
Peters, M. J.	Ann Rheum Dis	2010	19773290
Pieringer, H.	QJM	2011	21068083
Roubille, C.	Antiinflamm Antiallergy Agents Med Chem	2013	23286294
Solomon, D. H.	Arthritis Rheum	2004	15529391
Solomon, D. H.	Ann Rheum Dis	2013	23155221
Solomon, D. H.	Am J Med	2013	23885678
Soubrier, M.	Joint Bone Spine	2014	24880190
Souverain, P. C.	Heart	2004	15253953
Strohmayr, E. A.	Endocrinol Metab Clin North Am	2011	21565675
Turesson, C.	Ann Rheum Dis	2007	16877533
Wei, L.	Ann Intern Med	2004	15545676

**Table S5 Literature on glucocorticoid induced cardiovascular diseases.** A systematic literature review of the Medline and Cochrane Library databases was performed. Considering the inclusion and exclusion criteria, removal of duplicates and after addition of outstanding landmark papers the search yielded in 26 articles reporting on glucocorticoid induced effects on the cardiovascular system, which were provided to the experts in preparation to the meeting.

First Author	Journal	Year	PMID
Au, K.	Ann Rheum Dis	2011	21288960
Bernatsky, S.	Rheumatology (Oxford)	2007	17478469
Brassard, P.	Arthritis Rheum	2009	19248128
Cohen, S.	Arthritis Rheumatol	2014	25047021
Coyne, P.	J Rheumatol	2007	17659759
Crowson, C. S.	Arthritis Rheum	2012	22576809
Curtis, J.R.	Arthritis Rheum	2007	17393394
Curtis, J.R.	Arthritis Care Res (Hoboken)	2012	22833479
Curtis, J.R.	Arthritis Care Res (Hoboken)	2014	24470378
Dixon, W. G.	Ann Rheum Dis	2011	21285116
Dixon, W. G.	Arthritis Res Ther	2011	21884589
Dixon, W. G.	Ann Rheum Dis	2012	22241902
Doran, M. F.	Arthritis Rheum	2002	12355475
Grijalva, C.G.	Rheumatology (Oxford)	2010	19906833
Grijalva, C.G.	JAMA	2011	22056398
Listing, J.	Rheumatology (Oxford)	2013	23192911
Luzi, G.	Clin Ter	2009	19452100
Martinez-Martinez, M.U.	J Rheumatol	2014	24986849
Matsumoto, Y.	Acta Med Okayama	2011	22037270
Ruyssen-Witrand, A.	Joint Bone Spine	2010	20451437
Smitten, A.L.	J Rheumatol	2008	18260176
Strangfeld, A.	JAMA	2009	19224750
Strangfeld, A.	Ann Rheum Dis	2011	21791449
Stuck, A. E.	Rev Infect Dis	1989	2690289
Widdifield, J.	Arthritis Care Res (Hoboken)	2013	22833532
Winthrop, K.L.	JAMA	2013	23462785
Winthrop, K.L.	Rheum Dis Clin North Am	2012	23137579
Yun, H	Arthritis Care Res (Hoboken)	2015	25201241

**Table S6 Literature on glucocorticoid induced infection.** A systematic literature review of the Medline and Cochrane Library databases was performed. Considering the inclusion and exclusion criteria, removal of duplicates and after addition of outstanding landmark papers the search yielded in 28 articles reporting on glucocorticoid induced infections, which were provided to the task force members in preparation to the meeting.

### Structured questionnaire and discussion:

In order to achieve consensus on specific conditions where long-term glucocorticoid therapy has an acceptably low risk of harm in the treatment of chronic inflammatory rheumatic diseases the convenor proposed a structured questionnaire. Prior to the individual group discussion, the questions were reviewed and modified by all participants. In agreement with the whole group, five resulting questions (summarized in Box S1 below), addressing the most important points that may affect the actual level of harm of were formulated.

Following the individual group discussion, a final discussion and consensus finding was performed. Therefore, each question was discussed separately until general consensus was achieved. If this was not possible, the participants came to the arrangement of the lowest common basis resulting in a total agreement. For example when defining a long-term glucocorticoid usage all Task Force members agreed that we formulate “(3-) 6 months or more”, because all members agreed that 6 month is long-term treatment, but some of them state that even 3 month can be long-term,



depending on the adverse effect discussed. The strength of this approach is that the final statements are fully supported by all Task Force members.

The weakness is that some statements are somewhat vague – this, however, results rather from the lack of data than from different views.

Question 1: Does a dose-harm relationship exist? If so, how to describe this (daily dosage, cumulative dosages, treatment duration ...)? What is „safe“?

Question 2: Are specific patients groups (age, sex, diseases ...) at higher risk? If so, please specify.

Question 3: Are there comorbidities or other factors which increase the risk? If so, please specify.

Question 4: Do co-medications potentiate the risk? If so, which ones?

Question 5: Do preventive and therapeutic measures exist? If so, please specify.

**Box S1 Questions which were addressed at the EULAR Task Force meeting.** The results of the SLR were summarized and discussed within the four breakout groups and presented to the whole group following a structured questionnaire for final discussion and consensus finding