

#### **SUPPLEMENTARY APPENDIX 4: Recommendation statements considered but dropped, related to PICO questions that were dropped**

PICO A.13: In patients with early RA and moderate or high disease activity, who have never taken a DMARD medication, we (strongly/conditionally) recommend (using/against using) a combination of triple-DMARD therapy, high-dose short-term steroids, and a TNFi over a combination of triple-DMARD therapy and high-dose short-term steroids without a TNFi.

PICO A.14: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) TNFi monotherapy (with any of the 5 approved drugs) over triple DMARD therapy.

PICO A.15: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) TNFi+MTX therapy (with any of the 5 approved TNFi) over triple DMARD therapy.

PICO A.16: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) TNFi monotherapy (with any of the 5 approved TNFi) over non-TNF biologic therapy.

PICO A.17: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) TNFi+MTX therapy (with any of the 5 approved TNFi) over non-TNF biologic+MTX therapy.

PICO A.18: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) a non-TNF biologic over an oral tofacitinib.

PICO A.19: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) oral tofacitinib+MTX over a non-TNF biologic+MTX.

PICO A.20: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) oral tofacitinib over combination triple DMARD therapy.

PICO A.21: In patients with early RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) oral tofacitinib+MTX over combination triple DMARD therapy.

PICO A.22: In patients with early RA and moderate or high disease activity, we (strongly/conditionally) recommend (adding/against adding) double DMARD therapy in combination with TNFi over a TNFi without DMARDs over a mono or double DMARD therapy in combination with TNFi.

PICO B.25: In patients with established RA and moderate or high disease activity who have never taken methotrexate, we (strongly/conditionally) recommend (using/against using) oral tofacitinib over methotrexate alone.

PICO B.39: In patients with established DMARD-naive RA with only low disease activity, we (strongly/conditionally) recommend (using/against using) combination DMARD therapy over TNFi.

PICO B.40: In patients with established RA and moderate or high disease activity, who have failed traditional DMARD therapy, we (strongly/conditionally) recommend (adding/against adding) combination traditional DMARD therapy or adding TNF or non-TNF biologic therapy over DMARD monotherapy.

PICO B.41: In patients with established RA and moderate or high disease activity, who have not responded to DMARD medications, we (strongly/conditionally) recommend (using/against using) TNFi therapy and methotrexate over non-TNF biologic therapy and methotrexate.

PICO B.42: In patients with established RA who have failed traditional DMARD therapy with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) TNFi therapy over combination triple DMARD therapy.

PICO B.43: In patients with established RA and moderate or high disease activity, who have not responded to DMARD medications, we (strongly/conditionally) recommend (using/against using) TNFi therapy and methotrexate over combination triple DMARD therapy.

PICO B.44: In patients with established RA with moderate or high disease activity who have failed traditional DMARD therapy and are continuing MTX, we (strongly/conditionally) recommend (adding/against adding) tofacitinib

PICO B.50: In patients with established RA with moderate or high disease activity, who are on MTX and have failed a single TNFi, we (strongly/conditionally) recommend (using/against using) another TNFi+MTX over non-TNF biologic+MTX.

PICO B.51: In patients with established RA with moderate or high disease activity, who have failed traditional DMARD therapy, we (strongly/conditionally) recommend (using/against using) combination DMARDs, TNFi therapy, non-TNF biologic therapy, or tofacitinib with MTX over combination DMARDs, TNFi therapy, non-TNF biologic therapy, or tofacitinib without MTX

PICO D.2: In patients with established RA with moderate or high disease activity and evidence of an acute hepatitis B infection, we (strongly/conditionally) recommend (using/against using) combination DMARD therapy over TNFi.

PICO D.3: In patients with established RA with moderate or high disease activity and evidence of treated/immune to hepatitis B infection, we (strongly/conditionally) recommend (using/against using) non-TNF biologic over TNFi.

PICO D.4: In patients with established RA with moderate or high disease activity and evidence of an acute or chronic hepatitis B infection (hepatitis surface antigen positive), we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO D.5: In patients with established RA with moderate or high disease activity and evidence of treated/ immune to hepatitis B infection, we (strongly/conditionally) recommend (using/against using) combination DMARD therapy over TNFi .

PICO D.6: In patients with established RA with moderate or high disease activity and evidence of an acute or chronic hepatitis B infection (hepatitis surface antigen positive), we (strongly/conditionally) recommend (using/against using) TNFi over non-TNF biologic.

PICO D.7: In patients with established RA with moderate or high disease activity and evidence of treated/immune to hepatitis B infection, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO E.3: In patients with established RA with moderate or high disease activity and hepatitis C infection not currently requiring anti-viral therapy, we (strongly/conditionally) recommend (using/against using) DMARD therapy over TNFi.

PICO E.4: In patients with established RA with moderate or high disease activity and hepatitis C infection not currently requiring anti-viral therapy, we (strongly/conditionally) recommend (using/against using) non-TNF biologic over TNFi.

PICO E.5: In patients with established RA with moderate or high disease activity and hepatitis C infection not currently requiring anti-viral therapy, we (strongly/conditionally) recommend (using/against using) tofacitinib over TNFi.

PICO E.6: In patients with established RA with moderate or high disease activity and evidence of hepatitis C with low or undetectable viral load, we (strongly/conditionally) recommend (using/against using) TNFi over combination DMARD therapy.

PICO E.7: In patients with established RA with moderate or high disease activity and evidence of hepatitis C with low or undetectable viral load, we (strongly/conditionally) recommend (using/against using) TNFi over non-TNF biologic.

PICO E.8: In patients with established RA with moderate or high disease activity and evidence of hepatitis C with low or undetectable viral load, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO F.5: In patients with established RA with moderate or high disease activity and history of previously treated or untreated melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) oral tofacitinib over TNFi.

PICO F.6: In patients with established RA with moderate or high disease activity and history of previously treated or untreated non-melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO F.7: In patients with established RA with moderate or high disease activity and history of previously treated or untreated melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) combination DMARD therapy over TNFi.

PICO F.8: In patients with established RA with moderate or high disease activity and history of previously treated or untreated melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) non-TNF biologic over TNFi.

PICO F.9: In patients with established RA with moderate or high disease activity and history of previously treated or untreated non-melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) combination DMARD therapy over TNFi.

PICO F.10: In patients with established RA with moderate or high disease activity and history of previously treated or untreated non-melanoma skin cancer, we (strongly/conditionally) recommend (using/against using) non-TNF biologic over TNFi.

PICO G.5: In patients with established RA with moderate or high disease activity and history of a previously treated lymphoproliferative disorder, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO G.6: In patients with established RA with moderate or high disease activity, is it safer to use TNFi therapy or non-TNF biologic therapy in the presence of previously treated lymphoproliferative disorder?

PICO H.2: In patients with established RA with moderate or high disease activity and previously treated solid organ cancer, we (strongly/conditionally) recommend (using/against using) TNFi over combination DMARD therapy.

PICO H.3: In patients with established RA with moderate or high disease activity and previously treated solid organ cancer, we (strongly/conditionally) recommend (using/against using) non-TNF biologic over TNFi.

PICO H.4: In patients with established RA with moderate or high disease activity and previously treated solid organ cancer, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO I.3: In patients with established RA with moderate or high disease activity and previous serious infections, we (strongly/conditionally) recommend (using/against using) TNFi over rituximab.

PICO I.4: In patients with established RA with moderate or high disease activity and previous serious infections, we (strongly/conditionally) recommend (using/against using) TNFi over tocilizumab.

PICO I.5: In patients with established RA with moderate or high disease activity and previous serious infections, we (strongly/conditionally) recommend (using/against using) TNFi over oral tofacitinib.

PICO I.6: In patients with established RA with moderate or high disease activity and previous serious infections, we (strongly/conditionally) recommend (using/against using) TNFi over non-TNF biologic.

PICO A.23: In patients with early RA with only low disease activity, we (strongly/conditionally) recommend (tapering/continuing) traditional DMARD therapy.

PICO A.24: In patients with early RA in disease remission, we (strongly/conditionally) recommend (tapering/continuing) traditional DMARD therapy.

PICO A.25: In patients with early RA with only low disease activity, who are not on background DMARDs, we (strongly/conditionally) recommend (using/against using) short-term high-dose glucocorticoid therapy over traditional DMARD therapy without glucocorticoids.

PICO A.26: In patients with early RA with moderate or high disease activity, we (strongly/conditionally) recommend (adding/against adding) long-term low-dose glucocorticoid therapy over no DMARD/biologic treatment.

PICO A.27: In patients with early RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) short-term high-dose glucocorticoid therapy over traditional DMARDs without glucocorticoids.

PICO A.28: In patients with early RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) long-term low-dose glucocorticoids in combination with TNFi therapy over TNFi without glucocorticoids.

PICO A.29: In patients with early RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) long-term low-dose glucocorticoids in combination with non-TNF biologic over non-TNF biologic without glucocorticoids.

PICO B.45: In patients with established RA with only low disease activity, we (strongly/conditionally) recommend (using/against using) short-term high-dose glucocorticoids in combination with traditional DMARD therapy over traditional DMARD therapy without glucocorticoids.

PICO B.46: In patients with established RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/not using) long-term low-dose glucocorticoid therapy over no DMARD/biologic treatment (placebo).

PICO B.47: In patients with established RA with moderate or high disease activity on traditional DMARDs, we (strongly/conditionally) recommend (adding/not adding) short-term high-dose glucocorticoid therapy over no glucocorticoids.

PICO B.48: In patients with established RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) long-term low-dose glucocorticoid therapy in combination with TNFi over TNFi without glucocorticoids.

PICO B.49: In patients with established RA with moderate or high disease activity, we (strongly/conditionally) recommend (using/against using) long-term low-dose glucocorticoid therapy in combination with non-TNF biologic over non-TNF biologic without glucocorticoids.