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**FRI0192** **A SYSTEMATIC LITERATURE REVIEW TO INFORM THE 2019 UPDATE OF THE EULAR RECOMMENDATIONS FOR THE TREATMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS**

Antonis Fanouriakis<sup>1</sup>, Myrto Kostopoulou<sup>2</sup>, Alessia Alunno<sup>3</sup>, Martin Aringer<sup>4</sup>, Ingeborg Bajema<sup>5</sup>, John N. Boletis<sup>6</sup>, Ricard Cervera<sup>7</sup>, Andrea Doria<sup>8</sup>, Caroline Gordon<sup>9</sup>, Marcello Govoni<sup>10</sup>, Frederic Houssiau<sup>11</sup>, David Jayne<sup>12</sup>, Marios Kouloumas<sup>13</sup>, Annegret Kuhn<sup>14</sup>, Janni Lisander Larsen<sup>15</sup>, Kirsten Lerstrom<sup>16</sup>, Gabriela Moroni<sup>17</sup>, Marta Mosca<sup>18</sup>, Matthias Schneider<sup>19</sup>, Josef S. Smolen<sup>20</sup>, Elisabet Svenungsson<sup>21</sup>, Vladimir Tesar<sup>22</sup>, Angela Tincani<sup>23</sup>, Anne Trolldborg<sup>24</sup>, Ronald van Vollenhoven<sup>25</sup>, Jörg Wenzel<sup>26</sup>, George Bertias<sup>27</sup>, Dimitrios Boumpas<sup>1</sup>. <sup>1</sup>"Attikon" University Hospital, Athens, Greece; <sup>2</sup>G. Gennimatas" General Hospital, Athens, Greece; <sup>3</sup>University of Perugia, Perugia, Italy; <sup>4</sup>University Medical Center and Faculty of Medicine Carl Gustav Carus at the TU Dresden, Dresden, Germany; <sup>5</sup>Leiden University Medical Center, Leiden, Netherlands; <sup>6</sup>"Laikon" Hospital, National and Kapodistrian University of Athens, Medical School, Athens, Greece; <sup>7</sup>Hospital Clinic, Barcelona, Spain; <sup>8</sup>University of Padova, Padova, Italy; <sup>9</sup>Institute of Inflammation and Ageing, University of Birmingham, Birmingham, United Kingdom; <sup>10</sup>University of Ferrara, Azienda Ospedaliero-Universitaria Sant'Anna Ferrara, Ferrara, Italy; <sup>11</sup>Université catholique de Louvain, Brussels, Belgium; <sup>12</sup>University of Cambridge, Cambridge, United Kingdom; <sup>13</sup>Cyprus League Against Rheumatism, Aglantzia, Cyprus; <sup>14</sup>University Hospital Muenster, Muenster, Germany; <sup>15</sup>Rheumatology and Spine Diseases Centre, Rigshospitalet, Copenhagen, Denmark; <sup>16</sup>Lupus Europe, Farum, Denmark; <sup>17</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy; <sup>18</sup>University of Pisa, Pisa, Italy; <sup>19</sup>UKD, Heinrich-Heine University, Düsseldorf, Düsseldorf, Germany; <sup>20</sup>Medial University of Vienna, Vienna, Austria; <sup>21</sup>Karolinska Institutet and Karolinska University Hospital, Stockholm, Sweden; <sup>22</sup>1st Faculty of Medicine and General University Hospital, Charles University, Prague, Czech Republic; <sup>23</sup>University of Brescia, Brescia, Italy; <sup>24</sup>Aarhus University Hospital, Aarhus, Denmark; <sup>25</sup>Amsterdam University Medical Centers, Amsterdam, Netherlands; <sup>26</sup>University Hospital Bonn, Bonn, Germany; <sup>27</sup>University Hospital of Heraklion, Heraklion, Greece

**Background:** Culminating evidence over the past decade regarding management of systemic lupus erythematosus (SLE) called for an update of the 2008 EULAR recommendations for the treatment of the disease.

**Objectives:** Systematic review of the literature (SLR) to inform the 2019 EULAR recommendations for the management of SLE.

**Methods:** SLR of Pubmed from 01/2007 to 12/2017 for questions (selected through Delphi exercise) regarding: i) efficacy/safety of different drugs used in SLE, ii) treatment of specific manifestations, iii) monitoring and treatment goals and iv) comorbidities and adjunct therapy. Evidence was categorised based on design and validity of available studies [Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence (LoE)] and strength of statements was graded [Grading of recommendation (GoR), assessment, development and evaluations, GRADE].

**Results:** Main topics supported by strong evidence base included: Association of hydroxychloroquine (HCQ) use with favourable outcomes (LoE 1b,

GoR A), belimumab for extrarenal disease (LoE 1a, GoR A), efficacy of antimalarials in skin disease (LoE 1a, GoR A), mycophenolate mofetil (MMF) for induction and maintenance therapy of lupus nephritis (LN) and cyclophosphamide (CYC) in severe LN (LoE 1b, GoR A). Weak evidence supported the value of repeat kidney biopsy in refractory LN (LoE 4, GoR C), all second-line agents for skin disease (LoE 4, GoR C) and efficacy of most first and second-line treatments for thrombocytopenia (LoE 4, GoR C). Moderate LoE was found for all other questions (Table).

**Conclusion:** A SLR for the treatment of SLE found the highest LoE for benefits of HCQ, efficacy of belimumab for extrarenal disease and MMF and IV-CYC in LN.

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Table. Level of evidence for different items regarding treatment of systemic lupus erythematosus

Evidence Base	Topics in SLE treatment
<b>A (strong)</b>	<ul style="list-style-type: none"> <li>Association of HCQ use with favourable outcomes</li> <li>Chronic exposure to GC and risk of organ damage</li> <li>Gonadal toxicity of CYC</li> <li>Efficacy and safety of belimumab in extrarenal SLE</li> <li>Efficacy of antimalarials in skin disease</li> <li>MMF for induction and maintenance therapy of LN and cyclophosphamide for severe LN</li> <li>Immunosuppressive therapy for inflammatory neuropsychiatric manifestations</li> <li>Association of aPL with adverse outcomes</li> </ul>
<b>B (moderate)</b>	<ul style="list-style-type: none"> <li>HCQ cumulative exposure and retinal toxicity</li> <li>Efficacy of MTX and MMF in extrarenal SLE</li> <li>Comparable efficacy and less toxicity of lower-dose GC regimens</li> <li>Efficacy of RTX in renal and extrarenal SLE</li> <li>Efficacy of multitarget therapies for induction treatment in LN</li> <li>Use of CNIs in refractory LN</li> <li>Primary prophylaxis with low-dose aspirin in aPL(+) SLE patients</li> </ul>
<b>C/D (weak)</b>	<ul style="list-style-type: none"> <li>Efficacy of AZA, CsA, and CYC in extrarenal SLE</li> <li>Efficacy of second-line treatment in skin lupus</li> <li>Efficacy of most first and second-line treatments for thrombocytopenia</li> <li>Efficacy of vaccinations in SLE patients</li> <li>Efficacy of primary cardiovascular protection with statins and low-dose aspirin in SLE</li> </ul>

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### 2019 UPDATE OF THE EULAR RECOMMENDATIONS FOR THE MANAGEMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS

Antonis Fanouriakis<sup>1</sup>, Myrto Kostopoulou<sup>2</sup>, Alessia Alunno<sup>3</sup>, Martin Aringer<sup>4</sup>, Ingeborg Bajema<sup>5</sup>, John N. Boletis<sup>6</sup>, Ricard Cervera<sup>7</sup>, Andrea Doria<sup>8</sup>, Caroline Gordon<sup>9</sup>, Marcello Govoni<sup>10</sup>, Frederic Houssiau<sup>11</sup>, David Jayne<sup>12</sup>, Marios Kouloumas<sup>13</sup>, Annegret Kuhn<sup>14</sup>, Janni Lisander Larsen<sup>15</sup>, Kirsten Lerstrøm<sup>16</sup>, Gabriela Moroni<sup>17</sup>, Marta Mosca<sup>18</sup>, Matthias Schneider<sup>19</sup>, Josef S. Smolen<sup>20</sup>, Elisabet Svenungsson<sup>21</sup>, Vladimir Tesar<sup>22</sup>, Angela Tincani<sup>23</sup>, Anne Trolldborg<sup>24</sup>, Ronald van Vollenhoven<sup>25</sup>, Jörg Wenzel<sup>26</sup>, George Bertias<sup>27</sup>, Dimitrios Boumpas<sup>1</sup>. <sup>1</sup>"Attikon" University Hospital, Athens, Greece; <sup>2</sup>G. Gennimatas" General Hospital, Athens, Greece; <sup>3</sup>University of Perugia, Perugia, Italy; <sup>4</sup>University Medical Center and Faculty of Medicine Carl Gustav Carus at the TU Dresden, Dresden, Germany; <sup>5</sup>Leiden University Medical Center, Leiden, Netherlands; <sup>6</sup>"Laikon" Hospital, National and Kapodistrian University of Athens, Medical School, Athens, Greece; <sup>7</sup>Hospital Clinic, Department of Autoimmune Diseases, Barcelona, Spain; <sup>8</sup>University of Padova, Padova, Italy; <sup>9</sup>Institute of Inflammation and Ageing, University of Birmingham, Birmingham, United Kingdom; <sup>10</sup>University of Ferrara, Azienda Ospedaliero-Universitaria Sant'Anna Ferrara, Ferrara, Italy; <sup>11</sup>Université catholique de Louvain, Louvain, Belgium; <sup>12</sup>Cambridge, Department of Medicine, Cambridge, United Kingdom; <sup>13</sup>Cyprus League Against Rheumatism, Aglantzia, Cyprus; <sup>14</sup>University Hospital Muenster, Muenster, Germany; <sup>15</sup>Rheumatology and Spine Diseases Centre, Rigshospitalet, Copenhagen, Denmark; <sup>16</sup>Lupus Europe, Farum, Denmark; <sup>17</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy; <sup>18</sup>University of Pisa, Pisa, Italy; <sup>19</sup>UKD, Heinrich-Heine University, Düsseldorf, Germany; <sup>20</sup>Medical University of Vienna, Vienna, Austria; <sup>21</sup>Karolinska Institutet and Karolinska University Hospital, Stockholm, Sweden; <sup>22</sup>Charles University, Prague, Czech Republic; <sup>23</sup>University of Brescia, Brescia, Italy; <sup>24</sup>Aarhus University Hospital, Aarhus, Denmark; <sup>25</sup>Amsterdam University Medical Centers, Amsterdam, Netherlands; <sup>26</sup>University Hospital Bonn, Bonn, Germany; <sup>27</sup>University Hospital of Heraklion, Heraklion, Greece

**Background:** Recommendations for the treatment of systemic lupus erythematosus (SLE) were published by EULAR in 2008. Advances in treatment strategies and goals called for an update of these recommendations, capitalizing on strengths and experience from previous projects.

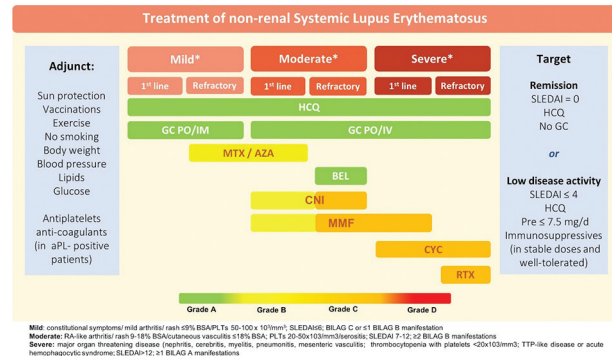
**Objectives:** To update the EULAR recommendations for the management of SLE.

**Methods:** Systematic literature review (01/2007-12/2017) followed by Delphi method to form questions, elicit expert opinions and reach consensus.

**Results:** Treatment in SLE aims at remission or low disease activity and prevention of flares. Hydroxychloroquine is recommended in all lupus patients, at a dose not exceeding 5mg/kg real body weight. During chronic maintenance treatment, glucocorticoids should be minimized to less than 7.5 mg/day (prednisone equivalent) and, when possible, withdrawn. Prompt initiation of immunomodulatory agents (methotrexate, azathioprine, mycophenolate) can expedite tapering/discontinuation of glucocorticoids. In persistently active or flaring extrarenal disease, add-on belimumab should be considered; rituximab may be considered in organ-threatening, refractory disease. Specific recommendations are also provided for the management of cutaneous, neuropsychiatric, haematological

and renal disease (including the use of calcineurin inhibitors). SLE patients should be assessed for their antiphospholipid antibody status, infectious and cardiovascular diseases risk profile, and preventative strategies be tailored accordingly.

**Conclusion:** Updated EULAR recommendations provide physicians and patients with updated consensus guidance on the management of SLE, combining evidence-base and expert-opinion.



Figure

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