



PRACTICE-CHANGING UPDATES

ARTICLES

- 1 [2019 update of EULAR recommendations for vaccination in adult patients with autoimmune inflammatory rheumatic diseases.](#) [FULL ARTICLE ACCESS](#)
Furer V, Rondaan C, Heijstek MW, Agmon-Levin N, van Assen S, Bijl M, Breedveld FC, D'Amelio R, Dougados M et. al
Ann Rheum Dis. 2019 Aug 14. pii: annrheumdis-2019-215882.
PMID: 31413005

An update of the 2011 EULAR recommendations for vaccination in adults with autoimmune inflammatory rheumatic diseases (AIIRD), based on literature reviews and expert opinion. Updated recommendations comprise 6 principles and 9 recommendations- need for annual vaccination status assessment, shared decision-making and favourable vaccination timing in quiescent disease, preferably before initiating immunosuppression. Non-live vaccines can be safely provided regardless of underlying therapy, but live-attenuated vaccines considered with caution. Influenza and pneumococcal vaccination should be strongly considered for majority of AIIRD patients. Tetanus toxoid and HPV vaccination should be given as recommended for the general population, while Hepatitis A, hepatitis B and herpes zoster vaccination administered to at-risk patients. Immunocompetent household members of patients with AIIRD should receive vaccines per national guidelines, except for oral poliomyelitis vaccine. Live-attenuated vaccines should be avoided in the 1st 6 months of life for newborns of mothers treated with biologics in the 2nd half of pregnancy.

- 2 [2019 European League Against Rheumatism/American College of Rheumatology Classification Criteria for Systemic Lupus Erythematosus.](#) [FULL ARTICLE ACCESS](#)
Aringer M, Costenbader K, Daikh D, Brinks R, Mosca M, Ramsey-Goldman R, Smolen JS, Wofsy D, Boumpas DT et. al
Arthritis Rheumatol. 2019 Sep;71(9):1400-1412.
PMID: 31385462

A new classification criteria for systemic lupus erythematosus (SLE) jointly supported by the EULAR and the ACR has been devised. It includes positive ANA $\geq 1X$ as obligatory entry criterion, followed by additive, weighted criteria grouped in 7 clinical and 3 immunologic domains. Patients with ≥ 10 points are further classified. The new criteria was developed using rigorous methodology with multidisciplinary and international input, with excellent sensitivity of 96.1% and specificity of 93.4%- compared to that of the ACR 1997 and Systemic Lupus International Collaborating Clinics 2012 criteria.



TECHNOLOGY AND MEDICINE

ARTICLES	
1	<p>Next-generation imaging of the skeletal system and its blood supply. <i>Grüneboom A, Kling L, Christiansen S, Mill L, Maier A, Engelke K, Quick HH, Schett G, Gunzer M.</i> Nat Rev Rheumatol. 2019 Sep;15(9):533-549. PMID: 31395974</p> <p>Advanced imaging technologies and big data analysis now allow examination of the 3D macro- and microstructure of bone. These include high-resolution CT, synchrotron-based imaging, X-ray microscopy, ultra-high-field MRI, light-sheet fluorescence microscopy, confocal and intravital two-photon imaging. These reveal the novel vascular system of trans-cortical vessels in bone as well as a lacunar network harbouring and connecting osteocytes. Next-generation imaging of the skeletal system and its blood supply are expected to enable new understanding of bone tissue composition and function in both health and disease. These insights could allow future early detection of and precise intervention in bone disorders.</p>

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RHEUMATOLOGY

ARTICLES

- [Exploring the Lipid Paradox Theory in Rheumatoid Arthritis: Associations of Low Circulating Low-Density Lipoprotein Concentration With Subclinical Coronary Atherosclerosis.](#)**

Giles JT, Wasko MCM, Chung CP, Szklo M, Blumenthal RS, Kao A, Bokhari S, Zartoshti A, Stein CM, Bathon JM.

Arthritis Rheumatol. 2019 Sep;71(9):1426-1436.
PMID: 30883031

Rheumatoid arthritis (RA) patients with the lowest low-density lipoprotein (LDL) concentrations are at higher risk of cardiovascular disease (CVD) events. Excluding those on lipid-lowering therapy, RA patients from 4 cohort studies of CVD were compared with non-RA controls. Differences in cardiac CT-derived Agatston coronary artery calcium (CAC) scores between RA and control groups were compared across LDL strata. Among those with low LDL (<70 mg/dl), CAC scores were >4X higher for RA patients than control- a difference greater than that in any other stratum except LDL ≥160 mg/dl. 32% of RA patients with low LDL also had a CAC score of ≥100 Agatston units compared to 7% of controls in the same LDL stratum- a difference greater than that in all other strata. Other than a higher frequency of current smokers, RA patients with low LDL did not have more CVD risk factors, greater RA disease activity or severity than RA patients with higher LDL concentrations. Findings suggest heightened screening and prevention of atherosclerotic CVD is appropriate in RA patients with low LDL.
- [Randomized, Double-Blind, Placebo-Controlled Trial of Intraarticular Trans-Capsaicin for Pain Associated With Osteoarthritis of the Knee.](#)** [FULL ARTICLE ACCESS](#)

Stevens RM, Ervin J, Nezzar J, Nieves Y, Guedes K, Burges R, Hanson PD, Campbell JN.

Arthritis Rheumatol. 2019 Sep;71(9):1524-1533.
PMID: 30888737

A multi-centre, double-blind study of patients with stable knee osteoarthritis (OA), to assess safety and efficacy of high-purity synthetic trans-capsaicin (CNTX-4975) in chronic, moderate-severe knee OA pain. Patients were randomised to receiving a single intraarticular injection of placebo or CNTX-4975 in doses of 0.5mg and 1.0mg. Efficacy was assessed using area under the curve (AUC) for change from baseline in daily WOMAC pain with walking score. Results show CNTX-4975 provides dose-dependent improvement in knee OA pain. Significant improvement is seen with 0.5mg and 1.0mg doses at 12 weeks, but sustained at 24 weeks only with 1.0mg. Treatment-emergent adverse events were similar in placebo and CNTX-4975 1.0mg groups.



- 3 [Clinical Applicability of Ultrasound in Systemic Large Vessel Vasculitides](#)
Alen Brkic, Lene Terslev, Uffe Møller Døhn, Søren Torp-Pedersen, Wolfgang A. Schmidt et. al
Arthritis Rheumatol. 2019 Jul 16.
PMID: 31309732
- The systemic large vessel vasculitides consist mainly of giant cell arteritis and Takayasu arteritis- both of which can lead to ischemia and end-organ damage. Ultrasound is an imaging technique that can depict inflammation of the vessel wall in large and medium vessel vasculitis. This article critically reviews current evidence for the clinical use of ultrasound in systemic large vessel vasculitides, with regard to clinical applicability, technical requirements, challenges, and cost. A roadmap for developing a fast-track ultrasound clinic for giant cell arteritis is also provided.
- 4 [Human cartilage homogenates influence the crystallization of monosodium urate \(MSU\) and the inflammatory response to MSU crystals: a potential link between osteoarthritis and gout.](#)
Chhana A, Pool B, Wei Y, Choi A, Gao R, Munro J, Cornish J, Dalbeth N.
Arthritis Rheumatol. 2019 Jul 11.
PMID: 31297987
- Monosodium urate (MSU) crystal-deposition and gout flares often affect osteoarthritic joints. This study examined the effects of human cartilage homogenates (prepared from macroscopically-healthy and diseased knee joints), on MSU crystallization and subsequent crystal-induced inflammation. Compared to no cartilage, addition of 5% and 10% healthy cartilage homogenate increased total mass of MSU crystals which were also found to be shorter than control bows. Results suggest in the presence of elevated urate, human cartilage homogenates increase MSU crystal formation and promote formation of smaller crystals which have greater inflammatory potential. These processes may contribute to the predilection of gout to osteoarthritic joints.
- 5 [The effects of fruit consumption in patients with hyperuricaemia or gout](#)
Takahiko Nakagawa, Miguel A. Lanaspá and Richard J. Johnson
Rheumatology (Oxford). 2019 Jul 1;58(7): 1133-1141
PMID: 31004140
- Fructose consumption has gained attention as a potential cause of hyperuricaemia since fructose metabolism produces urate as a by-product. In addition to sucrose and high fructose corn syrup, fresh fruit also contains fructose, suggesting patients with hyperuricaemia or gout might also avoid fresh fruit. However, some studies report fruit intake being associated with gout flares while others show they lower gout risk. Thus, fruits should not be simply viewed as a source of fructose. The complexity of fruits is accounted for by several nutrients existing in them. Vitamin C, epicatechin, flavonols, potassium and fibre are all nutrients in fruits which could modify fructose and urate effects. This review discusses clinical studies, potential mechanisms and effects of fruit and fruit juice intake on hyperuricaemia and gout.

SELF-LEARNING MODULES

Check out the Rheumatology [Self-Learning Modules](#) on the AMS website!

Unlimited attempts, with 5 CME points awarded on successful completion of each module.

