

**AMERICAN COLLEGE OF RHEUMATOLOGY  
POSITION STATEMENT**

**SUBJECT:** Synovial Fluid Crystal Analysis Credentialing

**PRESENTED BY:** Committee on Rheumatologic Care

**FOR DISTRIBUTION TO:** Members of the American College of Rheumatology  
Medical Societies  
Members of Congress  
Health Care Organizations/Third Party Carriers  
Managed Care Entities

**BACKGROUND:**

1 Rheumatologists diagnose and treat more than one hundred types of arthritis and autoimmune  
2 diseases. Synovial fluid analysis provides a unique opportunity for a minimally invasive ‘liquid  
3 biopsy’ of a joint. Critical decisions about treatment can be made by a physician with proper  
4 training and a basic microscope within minutes of the joint aspiration. It is one of the few great  
5 bargains of modern medicine – if rheumatologists are allowed to do it.

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7 The evaluation of synovial (joint) fluid is integral for the diagnosis of gout and other types of  
8 arthritis of microcrystals. Synovial fluid analysis is the chemical and microscopic examination  
9 of joint fluid for cells, chemical composition and crystals to diagnose and distinguish types of  
10 inflammatory arthritis. While cell counts (RBCs, WBCs, differentials) and chemical analysis  
11 (glucose, protein) are conducted with automated laboratory machines, crystal analysis is done by  
12 a trained expert looking at the synovial fluid with a microscope and polarizing light filters.  
13 Examination for crystals can be tedious, and is best done on ‘fresh’ joint fluid by the physician  
14 who is most involved with the process. Appropriately trained medical technologists and/or  
15 pathologists are not available at all times when clinical decisions need to be made, and  
16 transportation of the specimen to the lab as well as communication back to the physician takes  
17 hours under the best circumstances.

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19 Through fellowship training and continuing medical education, rheumatologists become experts  
20 in arthrocentesis and in the interpretation of synovial fluid crystal analysis. The directors of  
21 rheumatology fellowship programs in the United States have developed a core curriculum in this  
22 area to ensure program quality and consistency. Correct identification of crystals in synovial  
23 fluid is required for initial rheumatology board certification and for maintenance of certification.

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25 Only laboratories with CLIA certified level 2 and 3 are permitted to perform and bill for synovial  
26 fluid analysis. Rheumatologists have been told they are not permitted to use their own crystal  
27 analysis for decision making in patient care even if they do not bill for it. We suggest that  
28 synovial fluid analysis belongs in a special category of waived tests when performed by a  
29 rheumatologist for care of their own patients. No such category exists now, but there are other

30 clear examples of bedside tests that should be considered (e.g., microscopic urinalysis by  
31 nephrologists and urologists, KOH preps of skin scrapings by dermatologists, etc.)  
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33 **POSITION:**  
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- 35 1. The American College of Rheumatology supports the performance and interpretation of  
36 the synovial fluid crystal analysis as an integral part of the practice of rheumatology.  
37 Rheumatologists have unique training in diagnosis and management of inflammatory  
38 arthritis, including extensive training in arthrocentesis and synovial fluid crystal analysis,  
39 and should be allowed to use this clinical tool for its rapid and cost-effective usefulness.  
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- 41 2. The American College of Rheumatology supports the designation of synovial fluid  
42 crystal analysis as deserving a special waived test under CLIA regulations, when  
43 performed by a rheumatologist with documented training, credentialing and maintenance  
44 of certification or other demonstration of continued competence.  
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- 46 3. The ACR supports insurance reimbursement by Medicare and other insurers for the  
47 performance and interpretation of the synovial fluid crystal analysis by rheumatologists.  
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50 Approved by Board of Directors: 08/10