

European Consensus Finding Study Group on Laboratory Investigation in Rheumatology

Summary of the activities from March 2008 – March 2009

Forty five European laboratories involved in the field of serological diagnostics in Rheumatic Diseases participate in the Consensus Finding Study Group on Antinuclear Antibodies. The aim of these laboratories is to work towards achieving common consensus in this field: a laboratory result should be the same, wherever the result is obtained. Each year 10 sera from patients with connective tissue diseases are tested for a variety of autoantibodies. In addition, 20 ANA fluorescence patterns are distributed. The aim of the consensus group is to facilitate an interactive consensus exercise and discussion forum. It is expected that every participating member should be able to test the sera provided for at least 4 out of the following analytical groups: ANA, DNA, ENA, RF/citrullinated proteins (ACPA), Phospholipids, ANCA/GBM including MPO and PR-3. It is further expected that participating laboratories are present at the annual group participants meeting, which is held as a satellite meeting of the European Workshop for Rheumatology Research (EWRR). Registration for the EWRR conference now is no longer required to attend the group meeting.

Steering Committee

Dr R.J.T. Smeenk, Sanquin, Amsterdam, The Netherlands (chairman)
Dr M. Bluethner, Lab Seelig, Karlsruhe, Germany
Dr P. Charles, Kennedy Institute, London, England
Dr D. Hamann, Sanquin, Amsterdam, The Netherlands
Dr J. Rönnelid, University Hospital, Uppsala, Sweden

Annual exercise 2008/2009

Pre-test

There were not many sera to be tested this year:

Two were plasmapheresis samples obtained by Martin Bluethner, one was obtained by Johan Rönnelid from Dr Lotta Dahle (Linköping). A further sample from Dr Tanja Kveder was not tested in this pre-screen round (arrived too late). Five sera were test samples from Invent Diagnostica, a company that commercially supplies sera containing autoantibodies. In an earlier meeting, we decided to buy some commercially available serum samples, because our stock (and the newly supplied sera obtained from member labs of the Consensus Group) does not provide sufficient material for our studies. The results of the pre-test evaluation were discussed at a meeting of the Steering Committee in Amsterdam, held on October 17, 2008

From the evaluated sera and the existing serum bank of the Consensus Group, 10 sera were selected. Since the emphasis of the Consensus Round this year (and the next) lies in consistency testing, several sera were sent out in different dilutions. Also, the same samples will be distributed next year, to allow evaluation of assay consistency.

Dispatch of material to participants

The selected sera plus CDROMS 20 ANA patterns were dispatched to the participating labs in November. The CDROMS also contained the spreadsheets to be filled in by the participants.

Results of this year's exercise

The spreadsheets received by e-mail (from 44 of the 45 participating labs) were analysed by Dr Dörte Hamann in Amsterdam, using a computer analysis program obtained from Labor Seelig in Karlsruhe. Results were presented during the European Workshop for Rheumatology Research in Warsaw, Poland, (on February 26, 2009), where we had a very stimulating meeting of the steering committee together with a number of the participating labs. Because of this year's focus on consistency in testing, dr Johan Rönnelid of the Steering Committee was asked to present an introductory lecture on the subject, which he entitled 'Lessons to be learnt from quality assurance programs' during the meeting. Thereafter, results of serum testing (presented by dr Dörte Hamann) and ANA pattern recognition (presented by dr Alan Wiik) have been discussed.

In general, the participants again reached a high degree of consensus for most of the samples and the images. Still, it was observed that testing diluted samples (as were distributed to allow evaluation of assay consistency) did not add much to the data. Most labs report (most) antibodies either as "present" (a positive assay result) or "absent" a negative assay result.

Detailed results of this year's exercise were distributed to the participants and are also published on the website of the Sanquin Blood Supply Foundation in Amsterdam (via a link distributed to the participants: http://www.sanquin.nl/sanquin-nl/sqn_ecfsg.nsf, which can also be reached through www.eular.org).

In depth analysis of each lab's individual results compared to the consensus was sent to the participants in April 2009. Certificates of participation were sent to the participating labs by regular mail, also in April.

Next year's exercise

The Consensus Workshop will be continued the coming year, including the ANA pattern recognition CD effort. As was decided two years ago, we will again focus on consistency testing next year. We will again organize an introductory lecture on the main subject of the Consensus Round and have our Consensus Meeting on the Thursday at the start of the European Workshop for Rheumatology Research in 2010.