Key Summary of Conference Abstract

# Variability in ICAP (International Consensus on ANA Patterns) Pattern Reporting in Testing for Antinuclear Antibodies (ANA) by Indirect Immunofluorescence Assay (IFA): a Survey of Participants in the College of American Pathologist's (CAP) Proficiency Testing Program

## Background

- Nuclear and cytoplasmic fluorescence patterns detected in indirect immunofluorescence assays (IFAs) for antinuclear antibodies (ANA) suggest certain types of autoimmune diseases.[1,2]
- The International Consensus on ANA Patterns (ICAP) established nomenclature for ANA IFA patterns and defined the level of ability (competent or expert) needed to identify and interpret them.[2,3]
- The extent of adoption of this nomenclature by clinical laboratories in reporting ANA IFA results is not known.
- **Objective:** The investigators conducted a survey of ANA IFA pattern reporting practices and use of an internal fluorescence intensity standard in ANA IFAs among clinical laboratories.

## Methods

- Laboratories that participated in the College of American Pathologists Proficiency Testing programs for ANA in 2016 were sent a survey to assess pattern reporting practices and use of an internal fluorescence intensity standard in the assay.

## Results

- A total of 638 respondents indicated they perform ANA IFAs and report a fluorescence pattern; the percentage reporting competent-level nuclear patterns ranged from 42% for nuclear dots to almost 100% for nucleolar.
- Pattern reporting varied for other cellular components:
  - 18% of respondents report nuclear envelope patterns (all expert-level patterns).
  - From 10% (for polar) to 69% (for golgi) of respondents report competent-level cytoplasmic patterns.
  - From 32% (for lysosomal) to 59% (for spindle apparatus) of respondents report expert-level cytoplasmic patterns.
- Of 519 respondents who report types of nuclear speckled patterns
  - 29% report dense fine speckles (competent-level pattern).
  - Up to 48% report other competent and expert-level patterns.
- 54% of respondents use an internal fluorescence intensity standard in their ANA IFA assay.

## Conclusions

- Clinical laboratories use variable practices to report ANA IFA fluorescence patterns.
- Reporting of cytoplasmic patterns is more limited than is reporting of nuclear patterns.
- Variability in pattern reporting may be due in part to the failure of almost half of clinical laboratories to use internal fluorescence intensity standards in their ANA IFAs.

## Poster Presentation at the 17th Annual Meeting of the Federation of Clinical Immunology


### Authors

Stanley J Naides,[1,2] Jonathan R Genzen,[2,3] Gyorgy Abel,[2,4] Mu Shan,[2] Christine Bashleben,[2] Mohammad Qasim Ansari[2,5]

### Affiliations

[1] Quest Diagnostics Nichols Institute, San Juan Capistrano, CA
[2] Diagnostic Immunology Resource Committee, College of American Pathologists, Northfield, IL
[3] University of Utah/ARUP Laboratories, Salt Lake City, UT
[4] Lahey Clinic Burlington, Burlington, MA
[5] Cleveland Clinic, Cleveland, OH



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### Webpage

https://www.eventscribe.com/2017/FOCIS/postertitles.asp?h=Search%20by%20Poster%20Title

### References


1. Satoh M, Vazquez-Del Mercado M, Chan EK, et al. *Mod Rheumatol*. 2009;19:219-228.
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