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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Andersson-Gare, B., 1994 (39)  **Country (# centers):** Sweden (NR)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** Epidemiological survey | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 271/271  **Mean/median age (range):** NR  **Female:** NR  **Median time since diagnosis (range):** 5.6yr (0.1-18.6yr)  **Subtype:** Systemic (4.4%); Polyarticular (27.7%); Oligoarticular (36.9%); Monoarticular (24.7%); Juvenile ankylosing spondylitis (3.0%); Arthritis in connection with inflammatory bowel disease (0.4%); Juvenile psoriatic arthropathy (2.9%)  **Reference standard for JIA diagnosis:** EULAR | **IgM-RF test**  **Assay method:** Enzyme immunoassay  **Source of antigen:** NR  **Manufacturer (kit type):** Pharmacia Diagnostics, Uppsala, Sweden (RF IgM EIA)  **Positive cutoff:** Mean of control group + 2 sd (= 7.34 AU/ml)  **IgA-RF test**  **Assay method:** Enzyme immunoassay  **Source of antigen:** NR  **Manufacturer (kit type):** Pharmacia Diagnostics, Uppsala, Sweden (RF IgA EIA)  **Positive cutoff:** Mean of control group + 2 sd (= 3.58 AU/ml) |
| **Results (Overall )**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 29 | 4 | | - | 242 | 126 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 10.7%  **Specificity** = 96.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 26 | 5 | | - | 245 | 124 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 9.6%  **Specificity** = 96.1% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 4 | | - | 111 | 126 |   Disease group = JIA (mono- and oligoarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 5.1%  **Specificity** = 96.9% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 21 | 4 | | - | 102 | 126 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 17.1%  **Specificity** = 96.9% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 4 | | - | 6 | 126 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 14.3%  **Specificity** = 96.9% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 5 | | - | 107 | 124 |   Disease group = JIA (monoarticular and oligoarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 8.5%  **Specificity** = 96.1% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 5 | | - | 110 | 124 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 10.6%  **Specificity** = 96.1% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 5 | | - | 7 | 124 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 0%  **Specificity** = 96.1% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Avcin, T., 2002 (51)  **Country (# centers):** Italy and Slovenia (4)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 109/109  **Mean age (range):** 8.7yr (0.6-20.3yr)  **Female:** 72.5%  **Mean time since diagnosis (range):** 3.6yr (0.3-15.6yr)  **Subtype:** Polyarticular (47.7%); Oligoarticular (46.8%); Systemic (5.5%)  **Reference standard for JIA diagnosis:** NR  **SLE patients**  **Nanalyzed/Nenrolled:** 25/25  **Mean age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Reference standard for SLE diagnosis:** NR | **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Euro-Diagnostica, Arnhem, The Netherlands (ImmunoScan RA anti-CCP test kit)  **Positive cutoff:** 70 anti-CCP unit (AU) |

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| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 107 | 30 |   Disease group = JIA  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 1.8%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 25 | 30 |   Disease group = SLE  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0.0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 50 | 30 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 2.0%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 51 | 30 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 1.9%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 6 | 30 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0%  **Specificity** = 100.% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Balogh, Z., 1980 (40)  **Country (# centers):** Hungary (1)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** Consecutive patients | **Inclusion criteria:**  Healthy controls: Age- and sex-matched with JIA patients  **Exclusion criteria:**  JIA group: Juvenile ankylosing spondylitis, psoriatic arthritis, and arthritis associated with inflammatory bowel disease patients  **JIA patients**  **Nanalyzed/Nenrolled:** 46/46  **Mean age (range):** 9.6yr (2.7-15.8yr)  **Female:** 47.8%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (56.5%); Systemic (19.6%); Polyarticular (17.4%); Seropositive “adult-type” JCA (6.5%)  **Reference standard for JIA diagnosis:** EULAR/WHO workshop, Oslo, 1978 | **ANA test**  **Assay method:** Immunofluorescence technique (Holborow and Johnson 1969)  **Source of antigen:** Fluorescein-labeled anti-IgG (H+L) specific serum  **Manufacturer (kit type):** Hyland (NR)  **Positive cutoff:** Titer 1:10  **IgM-RF test**  **Assay method:** Latex fixation test  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** NR  **RF test (unspecified isotype)**  **Assay method:** Waaler-Rose test  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** NR |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 0 | | - | 40 | 10 |   Disease group = JIA  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 13.0%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 36 | 10 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 21.7%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 0 | | - | 39 | 10 |   Disease group = JIA  Comparator = Healthy controls  Index = RF (Waaler-Rose)  **Sensitivity** = 15.2%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 24 | 10 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 7.7%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 6 | 10 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 25.0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 9 | 10 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 0%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 0 | | - | 20 | 10 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 23.1%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 8 | 10 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 8 | 10 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 11.1%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 23 | 10 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = RF (Waaler-Rose)  **Sensitivity** = 11.5%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 8 | 10 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = RF (Waaler-Rose)  **Sensitivity** = 0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 8 | 10 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = RF (Waaler-Rose)  **Sensitivity** = 11.1%  **Specificity** = 100.% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Brunner, J., 2006 (52)  **Country (# centers):** Germany (1)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  ORG: With other autoimmunopathies such as Crohn's disease, reactive arthritis, diabetes mellitus type 1, uveitis, and myositis  NRG: Undergoing interventional cardiac therapy. With non-autoimmunopathies such as infectious diseases, endocrinopathies, arthralgias, cystic fibrosis, galactosemia, hemophilia, ADD, epilepsy, Raynaud's phenomenon, osteochondroma, and fibromyalgia  Healthy controls: Newborns with no known diseases  **Exclusion criteria:**  JIA: Written consent not obtained, bilateral anophthalmia, and insufficient blood volumes  **JIA patients**  **Nanalyzed/Nenrolled:** 45/45  **Mean age (range):** 11.0yr (1.9-17.3yr)  **Female:** 66.7%  **Mean time since diagnosis (range):** 2.1yr (NR)  **Subtype:** Polyarticular (15.6%); Systemic (6.7%); Oligoarticular (55.6%); Enthesitis-related arthritis (13.3%); Psoriatric (4.4%)  **Reference standard for JIA diagnosis:** NR  **SLE patients**  **Nanalyzed/Nenrolled:** 4/4  **Mean age (range):** NR  **Female:** NR  **Mean time since diagnosis (range):** NR  **Subtype:** NR  **Reference standard for SLE diagnosis:** NR | **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Euroimmun lot 21122m, Germany (NR)  **Positive cutoff:** 2.5 relative units (RU) |

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| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 43 | 42 |   Disease group = JIA  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 4.4%  **Specificity** = 100% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 5 | | - | 43 | 29 |   Disease group = JIA  Comparator = NRG  Index = CCP  **Sensitivity** = 4.4%  **Specificity** = 85.3% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 3 | | - | 43 | 34 |   Disease group = JIA  Comparator = ORG  Index = CCP  **Sensitivity** = 4.4%  **Specificity** = 91.9% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 3 | 42 |   Disease group = SLE  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 25.0%  **Specificity** = 100% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 5 | | - | 3 | 29 |   Disease group = SLE  Comparator = NRG  Index = CCP  **Sensitivity** = 25.0%  **Specificity** = 85.3% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 3 | | - | 3 | 34 |   Disease group = SLE  Comparator = ORG  Index = CCP  **Sensitivity** = 25.0%  **Specificity** = 91.9% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Egeskjold, E.M., 1981 (41)  **Country (# centers):** Denmark (NR)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  Healthy controls: Age- and sex-matched children without arthritis or chronic disease  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 48/48  **Mean/median age (range):** NR (1.0-16.0yr)  **Female:** 68.8%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (52.1%); Polyarticular (29.2%); Systemic (18.8%)  **Reference standard for JIA diagnosis:** ARA | **ANA test**  **Assay method:** Immunofluorescence technique  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:18  **RF test (IgM, IgG, IgA)**  **Assay method:** IIF  **Source of antigen:** Sheep red cell  **Manufacturer (kit type):** DAKO (NR)  **Positive cutoff:** Titer 1:9 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 32 | 2 | | - | 16 | 46 |   Disease group = JIA  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 66.7%  **Specificity** = 95.8% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 42 | 1 | | - | 6 | 47 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 87.5%  **Specificity** = 97.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 1 | | - | 46 | 47 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 4.2%  **Specificity** = 97.9% |

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| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 47 | 48 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 2.1%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 12 | 1 | | - | 4 | 47 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 75.0%  **Specificity** = 97.9% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 12 | 1 | | - | 2 | 47 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 85.7%  **Specificity** = 97.9% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 1 | | - | 0 | 47 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 100%  **Specificity** = 97.9% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Egeskjold, E.M., 1982 (49)  **Country (# centers):** Denmark (NR)  **Funding:** Government  **Study design:** Case control (NR)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patientsNanalyzed/Nenrolled:** 13/13  **Mean/median age (range):** 7.1yr/ 7.0yr (2.0-15.0yr)  **Female:** 69.2%  **Mean time since diagnosis (range):** 3.5yr (0.6-6.4yr)  **Subtype:** Oligoarticular (53.8%); Polyarticular (38.5%); Systemic (7.7%); Comorbid with chronical bilateral iridocyclitis (61.5%)  **Reference standard for JIA diagnosis:** ARA | **ANA (IgM, IgG, IgA)**  **Assay method:** IIF  **Source of antigen:** Rat liver cryostat sections and leucocytes)  **Manufacturer (kit type):** NR  **Positive cutoff:** Maximum of peak 2 displacement beyond normal range  **RF test (IgM, IgG, IgA)**  **Assay method:** IIF  **Source of antigen:** Sheep erythrocyte sensitized with rabbit IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Maximum of peak 2 displacement beyond normal range |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 0 | | - | 5 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-ANA  **Sensitivity** = 61.5%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 11 | 0 | | - | 2 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-ANA  **Sensitivity** = 84.676.9%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 13 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-ANA  **Sensitivity** = 0.0%  **Specificity** = 100.% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 11 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 15.4%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 3 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 76.9%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 13 | 3 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 0.0%  **Specificity** = 100.% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Eichenfield, A.H., 1986 (48)  **Country (# centers):** U.S. (1)  **Funding:** NR  **Study design:** Cohort (Retrospective)  **Recruitment:** Consecutive patients | **Inclusion criteria:**  Cohort: Children's complaints were referable to the musculoskeletal system or as being of an "autoimmune" nature. RF test results must be available and measured between Jan 1981 and Dec 1982  **Exclusion criteria:**  NR  **Historical patient cohort**  **Nanalyzed/Nenrolled:** 437/437  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:**  NR  **Reference standard for JIA diagnosis:** ARA | **IgM-RF test**  **Assay method:** Latex fixation test  **Source of antigen:** NR  **Manufacturer (kit type):** Hyland Laboratories (RA-test)  **Positive cutoff:** Titer 1:80 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 6 | | - | 100 | 326 |   Disease group = JIA  Comparator = Non-JIA children with MSK complaints  Index = IgM-RF (Latex)  **Sensitivity** = 5.0%  **Specificity** = 98.2% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Fawcett, P.T., 1999 (29)  **Country (# centers):** U.S.  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  ORG: Underwent elective orthopedic surgical procedures  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 178/178  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (49.4%); Polyarticular (38.2%); Systemic (12.4%)  **Reference standard for JIA diagnosis:** ACR  **SLE patients**  **Nanalyzed/Nenrolled:** 21/21  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Reference standard for SLE diagnosis:** ACR | **ANA test**  **Assay method:** IIF and ELISA (Immuno Concepts, Helix, Zeus)  **Source of antigen:** IIF: HEp-2 cell line . Immuno Concepts : Sm, RNP, SSA, SSB, Scl-70, Jo-1. Helix : Sm, SmRNP, SSA, SSB, Scl-70, Jo-1, ds-DNA, histones, and centromere antigens. Zeus: Sm, RNP, SSA, SSB, Scl-70, Jo-1, and ds-DNA  **Manufacturer (kit type):** IIF: Antibodies Incorporated, Davis, CA. ELISA: Immuno Concepts, Sacramento/CA, Helix, Sacramento/CA, Zeus, Raritan/NJ; IIF: IFA kit; IIF: Zeiss Axioplan microscope equipped for epifluorescence with excitation filters  **Positive cutoff:** IIF: Positive if a clearly discernible fluorescence pattern appears at 1:40 serum dilution. |

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| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 110 | 4 | | - | 68 | 22 |   Disease group = JIA  Comparator = ORG  Index = ANA (IIF)  **Sensitivity** = 61.8%  **Specificity** = 84.6% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 16 | 0 | | - | 162 | 26 |   Disease group = JIA  Comparator = ORG  Index = ANA (ELISA – Immuno Concepts)  **Sensitivity** = 9.0%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 73 | 5 | | - | 105 | 21 |   Disease group = JIA  Comparator = ORG  Index = ANA (ELISA – Helix)  **Sensitivity** = 41.0%  **Specificity** = 80.8% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 119 | 7 | | - | 59 | 19 |   Disease group = JIA  Comparator = ORG  Index = ANA (ELISA – Zeus)  **Sensitivity** = 67.1%  **Specificity** = 73.1% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 21 | 4 | | - | 0 | 22 |   Disease group = SLE  Comparator = ORG  Index = ANA (IIF)  **Sensitivity** = 100%  **Specificity** = 84.6% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 16 | 0 | | - | 5 | 26 |   Disease group = SLE  Comparator = ORG  Index = ANA (ELISA – Immuno Concepts)  **Sensitivity** = 76.2%  **Specificity** = 100% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 20 | 5 | | - | 1 | 21 |   Disease group = SLE  Comparator = ORG  Index = ANA (ELISA – Helix)  **Sensitivity** = 95.2%  **Specificity** = 80.8% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 20 | 7 | | - | 1 | 19 |   Disease group = SLE  Comparator = ORG  Index = ANA (ELISA – Zeus)  **Sensitivity** = 95.2%  **Specificity** = 73% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 68 | 4 | | - | 20 | 22 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = ANA (IIF)  **Sensitivity** = 77.3%  **Specificity** = 84.6% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 0 | | - | 83 | 26 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = ANA (ELISA – Immuno Concepts)  **Sensitivity** = 5.7%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 33 | 5 | | - | 55 | 21 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = ANA (ELISA – Helix)  **Sensitivity** = 37.5%  **Specificity** = 80.8% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 56 | 7 | | - | 32 | 19 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = ANA (ELISA – Zeus)  **Sensitivity** = 63.6%  **Specificity** = 73.1% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 7 | | - | 8 | 19 |   Disease group = JIA (systemic)  Comparator = ORG  Index = ANA (ELISA – Zeus)  **Sensitivity** = 63.6%  **Specificity** = 73.1% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 58 | 26 |   Disease group = JIA (polyarticular)  Comparator = ORG  Index = ANA (ELISA – Immuno Concepts)  **Sensitivity** = 14.7%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 33 | 5 | | - | 35 | 21 |   Disease group = JIA (polyarticular)  Comparator = ORG  Index = ANA (ELISA – Helix)  **Sensitivity** = 48.5%  **Specificity** = 80.8% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 49 | 7 | | - | 19 | 19 |   Disease group = JIA (polyarticular)  Comparator = ORG  Index = ANA (ELISA - Zeus)  **Sensitivity** = 72.1%  **Specificity** = 73.1% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 4 | | - | 18 | 22 |   Disease group = JIA (systemic)  Comparator = ORG  Index = ANA (IIF)  **Sensitivity** = 18.2%  **Specificity** = 84.6% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 21 | 26 |   Disease group = JIA (systemic)  Comparator = ORG  Index = ANA (ELISA – Immuno Concepts)  **Sensitivity** = 4.5%  **Specificity** = 100% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 5 | | - | 15 | 21 |   Disease group = JIA (systemic)  Comparator = ORG  Index = ANA (ELISA – Helix)  **Sensitivity** = 31.8%  **Specificity** = 80.8% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 7 | | - | 8 | 19 |   Disease group = JIA (systemic)  Comparator = ORG  Index = ANA (ELISA – Zeus)  **Sensitivity** = 63.6%  **Specificity** = 73.1% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Ferreira, R.A., 2007 (42)  **Country (# centers):** Brazil (3)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** Random selection | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 91/91  **Mean age (range):** 10.5yr (2.1-22.7yr)  **Female:** 64.8%  **Mean time since diagnosis (range):** 5.2yr (0.2-17.3yr)  **Subtype:** Polyarticular (27.5%); Oligoarticular (30.8%); Systemic (41.8%)  **Reference standard for JIA diagnosis:** ACR | **IgM-RF test**  **Assay method:** Latex fixation test  **Source of antigen:** NR  **Manufacturer (kit type):** RapiTex, Hoechst, Marburg, Germany (RF)  **Positive cutoff:** 20 IU/ml  **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Flow Laboratories, U.S. (Titertek Multiskan Plus)  **Positive cutoff:** EI (absorbance of serum samples/cut off)> 1.0  **IgA-RF test**  **Assay method:** ELISA  **Source of antigen:** Mouse IgG  **Manufacturer (kit type):** Flow Laboratories, U.S. (Titertek Multiskan Plus)  **Positive cutoff:** EI> 1.0 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 0 | | - | 86 | 45 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 5.5%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 30 | 3 | | - | 61 | 42 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF (ELISA)  **Sensitivity** = 33.0%  **Specificity** = 93.3% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 40 | 7 | | - | 51 | 38 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF (ELISA)  **Sensitivity** = 44.0%  **Specificity** = 84.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 28 | 45 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 3 | | - | 19 | 42 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF (ELISA)  **Sensitivity** = 32.1%  **Specificity** = 93.3% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 7 | | - | 15 | 38 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgA-RF (ELISA)  **Sensitivity** = 46.4%  **Specificity** = 84.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 0 | | - | 20 | 45 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 20.0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 3 | | - | 12 | 42 |   Disease group = (polyarticular)  Comparator = Healthy controls  Index = IgM-RF (ELISA)  **Sensitivity** = 52.0%  **Specificity** = 93.3% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 7 | | - | 15 | 38 |   Disease group = (polyarticular)  Comparator = Healthy controls  Index = IgA-RF (ELISA)  **Sensitivity** = 40.0%  **Specificity** = 84.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 38 | 45 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 3 | | - | 30 | 42 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF (ELISA)  **Sensitivity** = 21.1%  **Specificity** = 93.3% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 17 | 7 | | - | 21 | 38 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgA-RF (ELISA)  **Sensitivity** = 44.7%  **Specificity** = 84.4% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Ferucci, E.D., 2005 (53)  **Country (# centers):** U.S., throughout North America (NR)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** Simplex patients were recruited among a local cohort in Cincinnatti; multiplex patients were recruited from the National Institute of Arthritis and Muscoloskeletal and Skin Diseases-supported JRA Affected Sibpair Registry. Siblings were selected randomly. | **Inclusion criteria:**  Healthy controls: Children with increased risk of type I diabetes from the Diabetes and Autoimmunity Study in the Young (DAISY)  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 230/230  **Mean/median age (range):** 14.7yr (NR)  **Female:** 73.9%  **Mean/median time since diagnosis (range):** 9.7yr (NR)  **Subtype:** Polyarticular (33.5%); Oligoarticular (60.4%); Systemic (6.1%)  **Reference standard for JIA diagnosis:** ACR | **RF test (unspecified isotype)**  **Assay method:** Nephelometry  **Source of antigen:** NR  **Manufacturer (kit type):** Dade-Behring, Newark, DE (NR)  **Positive cutoff:** 15 IU/ml  **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Diastat; Axis-Shield Diagnostics, Dundee, Scotland, UK (NR)  **Positive cutoff:** 5 units/ml |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 25 | 23 | | - | 205 | 665 |   Disease group = JIA  Comparator = Healthy controls  Index = RF (unspecified isotype)  **Sensitivity** = 10.9%  **Specificity** = 96.7% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 4 | | - | 217 | 684 |   Disease group = JIA  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 5.7%  **Specificity** = 99.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 23 | | - | 130 | 665 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = RF (unspecified isotype)  **Sensitivity** = 6.5%  **Specificity** = 96.7% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 4 | | - | 136 | 684 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 2.2%  **Specificity** = 99.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 23 | | - | 63 | 665 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = RF (unspecified isotype)  **Sensitivity** = 18.2%  **Specificity** = 96.7% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 4 | | - | 67 | 684 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 13.0%  **Specificity** = 99.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 23 | | - | 12 | 665 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = RF (unspecified isotype)  **Sensitivity** = 14.3%  **Specificity** = 96.7% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 4 | | - | 14 | 684 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0%  **Specificity** = 99.4% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Habib, H.M., 2008 (54)  **Country (# centers):** Eqypt (1)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 68/68  **Mean age (range):** 10.6yr (3.0-16.0yr)  **Female:** 44.1%  **Mean time since diagnosis (range):** 3.7yr (1.0-8.0yr)  **Subtype:** Polyarticular (55.9%); Oligoarticular (29.4%); Systemic (14.7%)  **Reference standard for JIA diagnosis:** ILAR  **SLE patients**  **Nanalyzed/Nenrolled:** 14/14  **Mean age (range):** 12.1yr (NR)  **Female:** 92.9%  **Mean time since diagnosis (range):** 3.7yr (NR)  **Reference standard for SLE diagnosis:** NR | **CCP test**  **Assay method:** ELISA  **Source of antigen:** Synthetic circular peptide containing citrulline  **Manufacturer (kit type):** INOVA, San Diego, U.S. (Quanta LiteTM)  **Positive cutoff:** 20 units/ml |

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| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 0 | | - | 54 | 20 |   Disease group = JIA  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 20.6%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 14 | 20 |   Disease group = SLE  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0.0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 20 | 20 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 0 | | - | 24 | 20 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 36.8%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 10 | 20 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0%  **Specificity** = 100.% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Hanson, V., 1966 (38)  **Country (# centers):** U.S. (1)  **Funding:** NR  **Study design:** Case control (NR)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 45/58  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:**  NR  **Reference standard for JIA diagnosis:** ARA  **SLE patients**  **Nanalyzed/Nenrolled:** 14/14  **Mean/median age (range):** NR  **Female:** 80%  **Mean/median time since diagnosis (range):** NR  **Subtype:**  NR  **Reference standard for SLE diagnosis:** Conformed to Cook et al, and Urbach, and also met the criteria by Bywaters (Weir et al.) | **IgM-RF test**  **Assay method:** Latex titration test  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:160 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 35 | 32 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 22.2%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 3 | | - | 35 | 30 |   Disease group = JIA  Comparator = ORG (other collagen diseases)  Index = IgM-RF (Latex)  **Sensitivity** = 22.2%  **Specificity** = 90.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 1 | | - | 35 | 22 |   Disease group = JIA  Comparator = NRG (ulcerative collitis)  Index = IgM-RF (Latex)  **Sensitivity** = 22.2%  **Specificity** = 95.7% |

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| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 0 | | - | 10 | 32 |   Disease group = SLE  Comparator = Healthy controls  Index = IgM-RF (Latex)  **Sensitivity** = 28.6%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 3 | | - | 10 | 30 |   Disease group = SLE  Comparator = ORG (other collagen diseases)  Index = IgM-RF (Latex)  **Sensitivity** = 28.6%  **Specificity** = 90.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 1 | | - | 10 | 22 |   Disease group = SLE  Comparator = NRG (ulcerative collitis)  Index = IgM-RF (Latex)  **Sensitivity** = 28.6%  **Specificity** = 95.7% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Haynes, D.C., 1986 (31)  **Country (# centers):** U.S. (1)  **Funding:** Government and non-commercial institution (NIH and House of St. Giles the Cripple)  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NRG: Children with unspecified nonrheumatic disease. Age-matched with JIA patients  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 65/65  **Mean/median age (range):** NR (3.0-19.0yr)  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (35.3%); polyarticular (36.9%); systemic (27.7%)  **Reference standard for JIA diagnosis:** ARA | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** Breit Laboratories, Inc, Sacramento, CA (NR)  **Positive cutoff:** A reading of 1+ or greater in fluorescence at 1:20 dilution  **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** Human IgG  **Manufacturer (kit type):** Sigma Chemical Co. (NR); Tago, Inc. (NR); and Pharmacia Fine Chemicals (NR)  **Positive cutoff:** Mean of control group + 2 sd  **IgG-RF test**  **Assay method:** ELISA  **Source of antigen:** Rabbit IgG  **Manufacturer (kit type):** Sigma Chemical Co. (NR); Cappel Labs., Cochranville, PA (NR)  **Positive cutoff:** Mean of control group + 2 sd |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 33 | 1 | | - | 32 | 17 |   Disease group = JIA  Comparator = NRG (Unspecified)  Index = ANA  **Sensitivity** = 50.8%  **Specificity** = 94.4% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 23 | 0 | | - | 42 | 20 |   Disease group = JIA  Comparator = NRG (Unspecified)  Index = IgM-RF  **Sensitivity** = 33.8%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 0 | | - | 61 | 20 |   Disease group = JIA  Comparator = NRG (Unspecified)  Index = IgG-RF  **Sensitivity** = 6.2%  **Specificity** = 94.4% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 18 | 1 | | - | 6 | 17 |   Disease group = JIA (oligoarticular)  Comparator = NRG (Unspecified)  Index = ANA  **Sensitivity** = 75.0%  **Specificity** = 94.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 12 | 1 | | - | 11 | 17 |   Disease group = JIA (polyarticular)  Comparator = NRG (Unspecified)  Index = ANA  **Sensitivity** = 52.2%  **Specificity** = 94.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 1 | | - | 15 | 17 |   Disease group = JIA (systemic)  Comparator = NRG (Unspecified)  Index = ANA  **Sensitivity** = 16.7%  **Specificity** = 94.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 0 | | - | 19 | 20 |   Disease group = JIA (oligoarticular)  Comparator = NRG (Unspecified)  Index = IgM-RF  **Sensitivity** = 20.8%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 13 | 20 |   Disease group = JIA (polyarticular)  Comparator = NRG (Unspecified)  Index = IgM-RF  **Sensitivity** = 43.5%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 0 | | - | 10 | 20 |   Disease group = JIA (systemic)  Comparator = NRG (Unspecified)  Index = IgM-RF  **Sensitivity** = 44.4%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 23 | 20 |   Disease group = JIA (oligoarticular)  Comparator = NRG (Unspecified)  Index = IgG-RF  **Sensitivity** = 4.2%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 21 | 20 |   Disease group = JIA (polyarticular)  Comparator = NRG (Unspecified)  Index = IgG-RF  **Sensitivity** = 8.7%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 17 | 20 |   Disease group = JIA (systemic)  Comparator = NRG (Unspecified)  Index = IgG-RF  **Sensitivity** = 5.6%  **Specificity** = 100.% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Jones, O.Y., 2006 (32)  **Country (# centers):** More than one countries from North America (7)  **Funding:** NR  **Study design:** Case control (Retrospective)  **Recruitment:** Random selection | **Inclusion criteria:**  NRG: Records available in the Pediatric Rheumatology Disease Registry (1992-1995)  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 194/206  **Mean age (range):** 6.4yr (2.4-17.1yr)  **Female:** 75.2%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (41.8%); Polyarticular (38.4%); Systemic (19.9%)  **Reference standard for JIA diagnosis:** NR | **ANA test**  **Assay method:** NR  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:80 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 66 | 6 | | - | 128 | 28 |   Disease group = JIA  Comparator = NRG (Acute lymphocytic leukemia)  Index = ANA  **Sensitivity** = 34.0%  **Specificity** = 82.4% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Kasapcopur, O., 2004 (55)  **Country (# centers):** Turkey (1)  **Funding:** Academic institution  **Study design:** Case control (Prospective)  **Recruitment:** Consecutive patients | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 122/122  **Mean age (range):** 8.8yr (1.2-19.3yr)  **Female:** 59.0%  **Mean time since diagnosis (range):** 4.3yr (NR)  **Subtype:** Polyarticular (39.3%); Oligoarticular (29.5%); Systemic (23.0%); Enthsitis-related arthritis (5.7%); Juvenile psoriatic arthritis (2.5%)  **Reference standard for JIA diagnosis:** ILAR  **SLE patients**  **Nanalyzed/Nenrolled:** 19/19  **Mean age (range):** 13.6yr (5.3-18.0yr)  **Female:** 89.5%  **Mean time since diagnosis (range):** 4.5yr (NR)  **Reference standard for SLE diagnosis:** NR | **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Euroimmun, Germany (NR)  **Positive cutoff:** 5 relative units |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 119 | 15 |   Disease group = JIA  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 2.5%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 19 | 15 |   Disease group = SLE  Comparator = Healthy controls  Index = CCP  **Sensitivity** = 0.0%  **Specificity** = 100.% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Kwok, J.S.Y., 2005 (56)  **Country (# centers):** Hong Kong (1)  **Funding:** Academic institution  **Study design:** Case control (Retrospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 59/59  **Mean age (range):** 15.0yr (2.4-24.0yr)  **Female:** 40.7%  **Mean time since diagnosis (range):** 4.3yr (0.4-16.0yr)  **Subtype:** Oligoarticular (25.4%); Polyarticular (32.2%); Systemic (6.8%); Enthesitis-related (20.3%); Other arthritides (15.3%)  **Reference standard for JIA diagnosis:** ILAR  **SLE patients**  **Nanalyzed/Nenrolled:** 21/21  **Mean age (range):** NR  **Female:** NR  **Mean time since diagnosis (range):** NR  **Reference standard for SLE diagnosis:** NR | **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Inova Diagnostics Inc, San Diego, CA; QuantaLite CCP IgG ELISA kit; NR  **Positive cutoff:** 20 AU |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 1 | | - | 53 | 25 |   Disease group = JIA  Comparator = NRG (allergy, idiopathic thrombocytopenia, and hepatitis C)  Index = CCP  **Sensitivity** = 10.2%  **Specificity** = 97.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 1 | | - | 21 | 25 |   Disease group = SLE  Comparator = NRG (allergy, idiopathic thrombocytopenia, and hepatitis C)  Index = CCP  **Sensitivity** = 0.0%  **Specificity** = 96.2% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 14 | 25 |   Disease group = JIA (oligoarticular)  Comparator = NRG (allergy, idiopathic thrombocytopenia, and hepatitis C)  Index = CCP  **Sensitivity** = 6.7%  **Specificity** = 97.9% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 1 | | - | 15 | 25 |   Disease group = JIA (polyarticular)  Comparator = NRG (allergy, idiopathic thrombocytopenia, and hepatitis C)  Index = CCP  **Sensitivity** = 21.1%  **Specificity** = 97.9% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 3 | 25 |   Disease group = JIA (systemic)  Comparator = NRG (allergy, idiopathic thrombocytopenia, and hepatitis C)  Index = CCP  **Sensitivity** = 25.0%  **Specificity** = 97.9% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Lipinska, J., 2008 (33)  **Country (# centers):** Poland (NR)  **Funding:** Academic institution  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NRG: With functional cardio-vascular system dysfunction. Age- and sex-matched with JIA patients  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 96/96  **Mean/median age (range):** 12.8yr (3.0-18.0yr)  **Female:** 61.5%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (37.5%); Polyarticular (51.0%); Systemic (11.5%)  **Reference standard for JIA diagnosis:** ILAR | **ANA test**  **Assay method:** IIF  **Source of antigen:** NR  **Manufacturer (kit type):** Euroimmun Polska Sp. z o.o. (NR)  **Positive cutoff:** Titer 1:320  **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Biomedica Poland Sp. Z.o.o. (05-500 Piaseczno ELISA kit)  **Positive cutoff:** 24 RU/ml  **CCP test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** Euroimmun Polska Sp. z o.o. (52-219 Wroclaw)  **Positive cutoff:** 5 RU/ml |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 0 | | - | 88 | 22 |   Disease group = JIA  Comparator = NRG  Index = ANA  **Sensitivity** = 8.3%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 14 | 1 | | - | 82 | 21 |   Disease group = JIA  Comparator = NRG  Index = IgM-RF  **Sensitivity** = 14.6%  **Specificity** = 95.5% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 40 | 0 | | - | 56 | 22 |   Disease group = JIA  Comparator = NRG  Index = CCP  **Sensitivity** = 41.7%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 1 | | - | 34 | 21 |   Disease group = JIA (oligoarticular)  Comparator = NRG  Index = IgM-RF  **Sensitivity** = 5.6%  **Specificity** = 95.5% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 11 | 1 | | - | 38 | 21 |   Disease group = JIA (polyarticular)  Comparator = NRG  Index = IgM-RF  **Sensitivity** = 22.4%  **Specificity** = 95.5% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 10 | 21 |   Disease group = JIA (systemic)  Comparator = NRG  Index = IgM-RF  **Sensitivity** = 9.1%  **Specificity** = 95.5% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 0 | | - | 23 | 22 |   Disease group = JIA (oligoarticular)  Comparator = NRG  Index = CCP  **Sensitivity** = 36.1%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 21 | 0 | | - | 28 | 22 |   Disease group = JIA (polyarticular)  Comparator = NRG  Index = CCP  **Sensitivity** = 42.9%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 0 | | - | 5 | 22 |   Disease group = JIA (systemic)  Comparator = NRG  Index = CCP  **Sensitivity** = 54.5%  **Specificity** = 100% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Nordal, E.B., 2009 (34)  **Country (# centers):** Norway (5)  **Funding:** Non-commercial institution  **Study design:** Case control (Prospective)  **Recruitment:** Consecutive patients | **Inclusion criteria:**  JIA patients: Newly diagnosed cases  NRG: Children undergoing elective outpatient procedures with no diagnosis of inflammatory diseases  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 100/174  **Mean/median age (range):** NR  **Female:** 71.0%  **Mean/median time since diagnosis (range):** NR (max: 1.0yr)  **Subtype:** Oligoarticular (50.0%)  **Reference standard for JIA diagnosis:** ILAR | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** Immunoconcepts, Sacramento, CA (NR)  **Positive cutoff:** Titer 1:80  **ANA test**  **Assay method:** ELISA  **Source of antigen:** Recombinant or purified native nuclear antigens  **Manufacturer (kit type):** Pharmacia Diagnostics, Freiburg, Germany (Varelisa Recombi ANA screening test).  **Positive cutoff:** Titer 1:101 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 57 | 3 | | - | 43 | 55 |   Disease group = JIA  Comparator = NRG (no inflammatory diseases; undergoing elective surgery)  Index = ANA (IIF)  **Sensitivity** = 57.0%  **Specificity** = 94.8% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 0 | | - | 96 | 58 |   Disease group = JIA  Comparator = NRG (no inflammatory diseases; undergoing elective surgery)  Index = ANA (ELISA)  **Sensitivity** = 4.0%  **Specificity** = 100.% | **By comorbidity**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | N/A | | - | 3 | N/A |   Disease group = JIA (with uveitis)  Comparator = NRG (no inflammatory diseases; undergoing elective surgery)  Index = ANA (IIF)  **Sensitivity** = 81.3%  **Specificity** = N/A |
| **By comorbidity**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 44 | N/A | | - | 40 | N/A |   Disease group = JIA (without uveitis)  Comparator = NRG (no inflammatory diseases; undergoing elective surgery)  Index = ANA (IIF)  **Sensitivity** = 52.4%  **Specificity** = N/A |  |  |
| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Osborn, T.G., 1984 (35)  **Country (# centers):** U.S. (1)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 217/217  **Mean/median age (range):** NR (0.2-16.0yr)  **Female:** 66.4%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (46.5%); Systemic (12.9%); Polyarticular (40.6%)  **Reference standard for JIA diagnosis:** ARA | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:40 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 131 | 3 | | - | 86 | 32 |   Disease group = JIA  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 60.4%  **Specificity** = 91.4% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 131 | 15 | | - | 86 | 16 |   Disease group = JIA  Comparator = ORG (other connective tissue diseases)  Index = ANA  **Sensitivity** = 60.4%  **Specificity** = 51.6% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 63 | 3 | | - | 38 | 32 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 62.4%  **Specificity** = 91.4% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 59 | 3 | | - | 29 | 32 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 67.0%  **Specificity** = 91.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 3 | | - | 19 | 32 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 32.1%  **Specificity** = 91.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 63 | 15 | | - | 38 | 16 |   Disease group = JIA (oligoarticular)  Comparator = ORG (other connective tissue diseases)  Index = ANA  **Sensitivity** = 62.4%  **Specificity** = 51.6% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 59 | 15 | | - | 29 | 16 |   Disease group = JIA (polyarticular)  Comparator = ORG (other connective tissue diseases)  Index = ANA  **Sensitivity** = 67.0%  **Specificity** = 51.6% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 15 | | - | 19 | 16 |   Disease group = JIA (systemic)  Comparator = ORG (other connective tissue diseases)  Index = ANA  **Sensitivity** = 32.1%  **Specificity** = 51.6% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Permin, H., 1982 (43)  **Country (# centers):** Denmark (NR)  **Funding:** Non-commercial institution  **Study design:** Case control (Prospective)  **Recruitment:** Random selection | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 26/26  **Mean age (range):** 9.0yr (2.0-16.0yr)  **Female:** 73.1%  **Mean time since diagnosis (range):** 3.yr (0.5-15.0yr)  **Subtype:** Polyarticular (42.3%); Oligoarticular (42.3%); Systemic (15.4%)  **Reference standard for JIA diagnosis:** ARA | **IgM-RF test**  **Assay method:** IIF  **Source of antigen:** Formalin-fixed sheep red cell IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:10  **IgG-RF test**  **Assay method:** IIF  **Source of antigen:** Formalin-fixed sheep red cell IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:10  **IgA-RF test**  **Assay method:** IIF  **Source of antigen:** Formalin-fixed sheep red cell IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:10  **IgE-RF test**  **Assay method:** IIF  **Source of antigen:** Formalin-fixed sheep red cell IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:16 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 25 | 23 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 3.9%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 22 | 0 | | - | 4 | 23 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 84.6%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 26 | 23 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 0%  **Specificity** = 100.% |

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| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 26 | 23 |   Disease group = JIA  Comparator = Healthy controls  Index = IgE-RF  **Sensitivity** = 0%  **Specificity** = 100.% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Roizenblatt, S., 1993 (44)  **Country (# centers):** Brazil (1)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  ORG: Hypermobile children. Matched age and sex.  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 24/24  **Mean age (range):** 9.0yr (2.3-15.0yr)  **Female:** 54.2%  **Mean/median time since diagnosis (range):** NR (Min: 0.5yr)  **Subtype:** Polyarticular (37.5%); Oligoarticular (50.0%); Systemic (12.5%)  **Reference standard for JIA diagnosis:** ACR | **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** Sheep erytrocyte  **Manufacturer (kit type):** Dako Ab (NR)  **Positive cutoff:** Mean of control group + 2 sd  **IgG-RF test**  **Assay method:** ELISA  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Mean of control group + 2 sd |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 23 | 26 |   Disease group = JIA  Comparator = ORG  Index = IgM-RF  **Sensitivity** = 4.2%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 19 | 0 | | - | 5 | 26 |   Disease group = JIA  Comparator = ORG  Index = IgG-RF  **Sensitivity** = 79.2%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 11 | 26 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = IgM-RF  **Sensitivity** = 8.3%  **Specificity** = 100% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 9 | 26 |   Disease group = JIA (polyarticular)  Comparator = ORG  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 3 | 26 |   Disease group = JIA (systemic)  Comparator = ORG  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 10 | 0 | | - | 2 | 26 |   Disease group = JIA (oligoarticular)  Comparator = ORG  Index = IgG-RF  **Sensitivity** = 83.3%  **Specificity** = 100% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 0 | | - | 2 | 26 |   Disease group = JIA (polyarticular)  Comparator = ORG  Index = IgG-RF  **Sensitivity** = 77.8%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 1 | 26 |   Disease group = JIA (systemic)  Comparator = ORG  Index = IgG-RF  **Sensitivity** = 66.7%  **Specificity** = 100% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Saulsbury F.T., 1990 (50)  **Country (# centers):** U.S. (NR)  **Funding:** Non-commercial institution  **Study design:** Case control (NR)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 50/50  **Mean/median age (range):** NR (1.0-18.0yr)  **Female:** 78.0%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (56.0%); polyarticular (28.0%); systemic (16.0%)  **Reference standard for JIA diagnosis:** Based on reference No. 7 | **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** Latex beads coated with human IgG  **Manufacturer (kit type):** Dynatech Laboratories, Alexandria, VA (NR)  **Positive cutoff:** Titer 1:20  **IgG-RF test**  **Assay method:** ELISA  **Source of antigen:** Rabbit IgG  **Manufacturer (kit type):** Gamma Biologicals, Inc. Houston, TX (NR)  **Positive cutoff:** Titer 1:20  **IgA-RF test**  **Assay method:** ELISA  **Source of antigen:** Latex beads coated with human IgG  **Manufacturer (kit type):** Dynatech Laboratories, Alexandria, VA (NR)  **Positive cutoff:** Titer 1:20 |
| **Results (Overall )**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 11 | 1 | | - | 39 | 38 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 22.0%  **Specificity** = 97.4% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 48 | 39 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 58.0%  **Specificity** = 94.9% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 11 | 1 | | - | 39 | 38 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 32.0%  **Specificity** = 97.4% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 1 | | - | 23 | 38 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 17.9%  **Specificity** = 97.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 28 | 39 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 1 | | - | 20 | 38 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 28.9%  **Specificity** = 97.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 5 | 1 | | - | 9 | 38 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 35.7%  **Specificity** = 97.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 13 | 39 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 7.1%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 1 | | - | 12 | 38 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 14.3%  **Specificity** = 97.4% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 7 | 38 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 12.5%  **Specificity** = 97.4% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 7 | 39 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 12.5%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 7 | 38 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 12.5%  **Specificity** = 97.4% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Siamopoulou-Mavridou, A., 1991 (36)  **Country (# centers):** Greece (NR)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** Consecutive patients | **Inclusion criteria:**  Healthy controls: Age- and sex-matched children without rheumatic disease  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 69/69  **Mean age (range):** 8.6yr (1.0-15.0yr)  **Female:** 59.4%  **Mean/median time since diagnosis (range):** 5.7yr (1.0-9.0yr)  **Subtype:** Oligoarticular (43.5%); Polyarticular (29.0%); Systemic (27.5%)  **Reference standard for JIA diagnosis:** EULAR | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:40  **IgM-RF test**  **Assay method:** Latex fixation test  **Source of antigen:** NR  **Manufacturer (kit type):** Behringwerke AG (NR)  **Positive cutoff:** Mean optical density (OD) of healthy controls + 3 sd |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 41 | 2 | | - | 28 | 64 |   Disease group = JIA  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 59.4%  **Specificity** = 97.0% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 66 | 66 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 4.4%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 21 | 2 | | - | 9 | 64 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 70.0%  **Specificity** = 97.0% |

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| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 13 | 2 | | - | 7 | 64 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 65.0%  **Specificity** = 97.0% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 2 | | - | 12 | 64 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 36.8%  **Specificity** = 97.0% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 30 | 66 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 100% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 17 | 66 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 15.0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 19 | 66 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 100% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Taseski, B., 1981 (45)  **Country (# centers):** Yugoslavia (1)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 40/40  **Mean/median age (range):** NR (Max: 17.0yr)  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:** Monoarthicular (25.0%); Systemic (15.0%); Polyarticular (60.0%)  **Reference standard for JIA diagnosis:** NR  **Reference standard for SLE diagnosis:** NR | **RF test (unspecified isotype)**  **Assay method:** Photometrical latex test (PLT)  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Photometrically measured even at the lowest serum dilution  **RF test (unspecified isotype)**  **Assay method:** Standard sensitized sheep-cell test (SSC)  **Source of antigen:** Sheep cell  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:64  **IgM-RF test**  **Assay method:** Latex slide test (LST)  **Source of antigen:** NR  **Manufacturer (kit type):** NR  **Positive cutoff:** Agglutination visually detected |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 20 | 4 | | - | 20 | 20 |   Disease group = JIA  Comparator = Healthy controls  Index = RF (PLT)  **Sensitivity** = 50.0%  **Specificity** = 83.3% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 40 | 24 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF (LST)  **Sensitivity** = 0%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 39 | 24 |   Disease group = JIA  Comparator = Healthy controls  Index = RF (SSC)  **Sensitivity** = 2.5%  **Specificity** = 100.% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 9 | 4 | | - | 18 | 20 |   Disease group = JIA  Comparator = ORG (collagen diseases)  Index = RF (PLT)  **Sensitivity** = 33.3%  **Specificity** = 83.3% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 0 | | - | 26 | 24 |   Disease group = JIA  Comparator = ORG (collagen diseases)  Index = IgM-RF (LST)  **Sensitivity** = 3.7%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 24 | 24 |   Disease group = JIA  Comparator = ORG (collagen diseases)  Index = RF (SSC)  **Sensitivity** = 11.1%  **Specificity** = 100.% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 4 | | - | 0 | 20 |   Disease group = SLE  Comparator = Healthy controls  Index = RF (PLT)  **Sensitivity** = 100 %  **Specificity** = 100.% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Varbanova, B.B., 1999 (46)  **Country (# centers):** Bulgaria (NR)  **Funding:** NR  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 53/53  **Mean/median age (range):** NR (1.5-18.0yr)  **Female:** NR  **Mean/median time since diagnosis (range):** NR (Min: 1yr)  **Subtype:** Oligoarticular (62.3%); Seronegative Polyarticular (37.7%)  **Reference standard for JIA diagnosis:** EULAR  **SLE patients**  **Nanalyzed/Nenrolled:** 22/22  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Reference standard for SLE diagnosis:** NR | **IgM-RF test**  **Assay method:** ELISA  **Source of antigen:** Human gamma globulin  **Manufacturer (kit type):** CLB-Amsterdam (NR)  **Positive cutoff:** 6.25 IU  **IgG-RF test**  **Assay method:** ELISA  **Source of antigen:** Rabbit IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Mean international unit (IU) of healthy controls + 2 sd  **IgA-RF test**  **Assay method:** ELISA  **Source of antigen:** Rabbit IgG  **Manufacturer (kit type):** NR  **Positive cutoff:** Mean IU of healthy controls + 2 sd |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 17 | 0 | | - | 36 | 58 |   Disease group = JIA  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 32.1%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 0 | | - | 46 | 58 |   Disease group = JIA  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 13.2%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 15 | 0 | | - | 38 | 58 |   Disease group = JIA  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 28.3%  **Specificity** = 100.% |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 20 | 58 |   Disease group = SLE  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 9.1%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 19 | 58 |   Disease group = SLE  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 13.6%  **Specificity** = 100.% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 20 | 58 |   Disease group = SLE  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 9.1%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 6 | 0 | | - | 27 | 58 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 18.2%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 11 | 0 | | - | 9 | 58 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgM-RF  **Sensitivity** = 55.0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 0 | | - | 29 | 58 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 12.1%  **Specificity** = 100% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 3 | 0 | | - | 17 | 58 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgG-RF  **Sensitivity** = 15.0%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 7 | 0 | | - | 26 | 58 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 21.2%  **Specificity** = 100% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 8 | 0 | | - | 12 | 58 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = IgA-RF  **Sensitivity** = 40.0%  **Specificity** = 100% |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Wakhlu, A., 2003 (37)  **Country (# centers):** India (1)  **Funding:** Academic institution  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 148/148  **Median age (range):** 14.0yr (2.0-26.0yr)  **Female:** 43.2%  **Mean/median time since diagnosis (range):** NR  **Subtype:** Oligoarticular (36.5%); Polyarticular (43.2%); Systemic (20.3%)  **Reference standard for JIA diagnosis:** ARA | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** NR  **Positive cutoff:** Titer 1:40 |
| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 146 | 25 |   Disease group = JIA  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 1.4%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 54 | 25 |   Disease group = JIA (oligoarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 0%  **Specificity** = 100.% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 0 | | - | 62 | 25 |   Disease group = JIA (polyarticular)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 3.1%  **Specificity** = 100.% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 0 | | - | 30 | 25 |   Disease group = JIA (systemic)  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 0%  **Specificity** = 100.% |  |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Wananukul, S., 2005 (30)  **Country (# centers):** Thailand (1)  **Funding:** Non-commercial institution  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NRG: Scheduled for elective surgery (adenotonsillectomy, herniorrhaphy or plastic surgery)  **Exclusion criteria:**  All participants: Exclude overt autoimmune disease, or conditions associated with abnormal ANA titers (infection, hepatitis and malignancy) or underwent treatment with certain drugs (procainamide, hydralazine, chlorpromazine, etc)  All participants: Exclude children aged less than 6 months old  **SLE patients**  **Nanalyzed/Nenrolled:** 46/52  **Mean/median age (range):** NR (5.0-15.0yr)  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:** NR  **Reference standard for SLE diagnosis:** 1997 revised criteria for the classification of SLE | **ANA test**  **Assay method:** IIF  **Source of antigen:** HEp-2 cell line  **Manufacturer (kit type):** Diasarin, Stillwater, MN (ANAFAST kits)  **Positive cutoff:** Titer ≥ 1:40 |
| **Results (Overall)**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 42 | 15 | | - | 4 | 84 |   Disease group = SLE  Comparator = Healthy controls (elective surgery)  Index = ANA  **Sensitivity** = 91.3%  **Specificity** = 84.8% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 42 | 17 | | - | 4 | 91 |   Disease group = SLE  Comparator = Healthy controls  Index = ANA  **Sensitivity** = 91.3%  **Specificity** = 84.3% |  |

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| **Study** | **Participants Characteristics** | **Index Test Characteristics** |
| Wernick, R., 1981 (47)  **Country (# centers):** U.S. (NR)  **Funding:** Government  **Study design:** Case control (Prospective)  **Recruitment:** NR | **Inclusion criteria:**  NR  **Exclusion criteria:**  NR  **JIA patients**  **Nanalyzed/Nenrolled:** 49/49  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Subtype:** Polyarticular (22.4%); Oligoarticular (59.2%); Systemic (18.4%)  **Reference standard for JIA diagnosis:** ARA  **SLE patients**  **Nanalyzed/Nenrolled:** 7/7  **Mean/median age (range):** NR  **Female:** NR  **Mean/median time since diagnosis (range):** NR  **Reference standard for SLE diagnosis:** ARA | **IgM-RF test**  **Assay method:** Solid phase radioimmunoassay  **Source of antigen:** Rabbit and human IgG  **Manufacturer (kit type):** Signma Chemical Co., St. Louis, MO (Cohn Fraction II)  **Positive cutoff:** Mean of normal controls + 2 SD  **IgG-RF test**  **Assay method:** Solid phase radioimmunoassay  **Source of antigen:** Rabbit and human IgG  **Manufacturer (kit type):** Signma Chemical Co., St. Louis, MO (Cohn Fraction II)  **Positive cutoff:** Mean of normal controls + 2 SD |
| **Results (Overall )**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 2 | | - | 47 | 30 |   Disease group = JIA  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgM-RF  **Sensitivity** = 4.1%  **Specificity** = 93.8% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 4 | 1 | | - | 45 | 32 |   Disease group = JIA  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgG-RF  **Sensitivity** = 8.2%  **Specificity** = 90.6% | **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 1 | | - | 7 | 32 |   Disease group = SLE  Comparator = NRG (scoliosis and neurologic diseases)  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 97.0% |

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| **Overall**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 2 | | - | 6 | 30 |   Disease group = SLE  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgG-RF  **Sensitivity** = 14.3%  **Specificity** = 93.8% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 2 | | - | 28 | 30 |   Disease group = JIA (oligoarticular)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgM-RF  **Sensitivity** = 3.4%  **Specificity** = 93.8% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 2 | | - | 10 | 30 |   Disease group = JIA (polyarticular)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgM-RF  **Sensitivity** = 9.1%  **Specificity** = 93.8% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 0 | 2 | | - | 9 | 30 |   Disease group = JIA (systemic)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgM-RF  **Sensitivity** = 0%  **Specificity** = 93.8% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 2 | 1 | | - | 27 | 32 |   Disease group = JIA (oligoarticular)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgG-RF  **Sensitivity** = 6.9%  **Specificity** = 97.0% | **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 10 | 32 |   Disease group = JIA (polyarticular)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgG-RF  **Sensitivity** = 9.1%  **Specificity** = 97.0% |
| **By subtype**   |  |  |  |  | | --- | --- | --- | --- | |  | | Reference | | | + | - | | Index test | + | 1 | 1 | | - | 8 | 32 |   Disease group = JIA (systemic)  Comparator = NRG (Scoliosis and neurologic diseases)  Index = IgG-RF  **Sensitivity** = 11.1%  **Specificity** = 90.6% |  |  |