Table H1. Quality assessment table of diagnostic accuracy/concordance studies

| **Study, Year** | **Was the test applied to an appropriate spectrum of patients (with and without disease)?**  **Avoid case-control?** | **Was the population tested random (not consecutive)?** | **Adequate sample size?** | **Eligibility criteria specified?**  **Was there a rigorous assessment of the CFS population?** | **Reporting of attrition? Minimal loss to followup?** |
| --- | --- | --- | --- | --- | --- |
| Davenport, et al., 201160 | Unclear - CFS group and a non-disabled sedentary control group | Unclear - physician referral | No: n=30  100% female | Yes: 2 physicians referred patients meeting criteria | Unclear |
| Davenport, et al., 201161 | Unclear - CFS group and a non-disabled sedentary control group | Unclear - physician referral | No: n=30  100% female | Yes: 2 physicians referred patients meeting criteria | Unclear |
| Gaab, et al., 200466 | Unclear - CFS group and a randomly selected control group were matched for age/sex | Unclear for CFS (subjects were recruited from a self-help organization); yes for controls | No: n=42  52% female | Yes: all underwent psychiatric evaluation in addition to fulfilling the CFS criteria | Unclear |
| Gaab, et al., 200267 | Unclear - CFS group and a randomly selected control group were matched for age/sex | Unclear for CFS (subjects were recruited from a self-help organization); yes for controls | No: n=35  43% female | Yes: all underwent psychiatric evaluation in addition to fulfilling the CFS criteria | Unclear |
| Gaab, et al., 200568 | Unclear - CFS group and a randomly selected control group were matched for age/sex | Unclear for CFS (subjects were recruited from a self-help organization); yes for controls | No: n=41  51% female | Yes: all underwent psychiatric evaluation in addition to fulfilling the CFS criteria | Unclear |
| Hadzi-Pavlovic, et al., 200064 | Unclear - CFS controls recruited a non-CFS control | Yes, population-based recruitment of the CFS and control groups | Yes: n=798  66% female | Yes/unclear: assessed diagnostic confidence; analyzed with and without those for whom there was less diagnostic confidence | Yes: began with 770  subjects; final sample 368 |

Table H1. Quality assessment table of diagnostic accuracy/concordance studies (continued)

| **Study, Year** | **Is the test adequately described and reproducible? Reliable and valid measurements?** | **Validation of test protocol in a second group?** | **Standard case definition?** | **Evaluate all patients for the outcome?** | **Were the outcome assessors blinded to the reference standard (CFS diagnosis)?** | **Quality rating** |
| --- | --- | --- | --- | --- | --- | --- |
| Davenport, et  al., 201160 | Yes: described  cardiopulmonary exercise tests in detail and it is reproduced from prior studies  No reliability/validity results presented | No | Yes: CDC (Fukuda, 1994) | Yes | Unclear | Fair |
| Davenport, et  al., 201161 | Yes: used standardized  measures | Unclear (reproducibility  assessed statistically and construct validity also assessed) | Yes: CDC (Fukuda, 1994) | Yes | Unclear | Fair |
| Gaab, et al.,  200466 | Yes: detailed descriptions of  salivary cortisol testing No reliability/validity results presented | No | Yes: CFS patients fulfilled  both CDC (Fukuda, 1994) and Oxford (Sharpe, 1991) criteria | Yes | Unclear | Fair |
| Gaab, et al.,  200267 | Yes: detailed description of  insulin tolerance test, ACTH, cortisol  No reliability/validity results presented | No | Yes: CFS patients fulfilled  both CDC (Fukuda 1994) and Oxford (Sharpe 1991) criteria | Yes | Unclear | Fair |
| Gaab, et al.,  200568 | Yes: detailed description of  ACTH, cortisol, cytokine No reliability/validity results presented | No | Yes: CFS patients fulfilled  both CDC (Fukuda, 1994) and Oxford (Sharpe, 1991) criteria | Yes | Unclear | Fair |
| Hadzi-Pavlovic,  et al., 200064 | Yes: used standardized  measures | No | Yes: had physician rating  of diagnostic confidence regarding CFS diagnosis | No: 92 of 798  subjects were excluded because of incomplete data (70/368 CFS and  22/430 controls) | Unclear | Fair |

Table H1. Quality assessment table of diagnostic accuracy/concordance studies (continued)

| **Study, Year** | **Was the test applied to an**  **appropriate spectrum of patients (with and without disease)?**  **Avoid case-control?** | **Was the population tested random (not consecutive)?** | **Adequate sample size?** | **Eligibility criteria specified?**  **Was there a rigorous assessment of the CFS population?** | **Reporting of attrition? Minimal loss to followup?** |
| --- | --- | --- | --- | --- | --- |
| Jason, 201056 | Yes - community-based  recruitment of CFS population | Yes - recontact of subjects from  community-based CFS  recruitment | Unclear: n=108  % Female: NR | Yes: 2 physicians  independently rated | Yes  Loss to follow up: began with 213 from the community sample; data available on 84 without CFS and 24 with CFS |
| Jason, 201165 | Yes - had 2 groups of CFS  patients (tertiary care and community sample) and control from community | Yes - community samples  recruited from stratified random sample of Chicago neighborhoods; tertiary care CFS group also recruited from variety of sources (physician,  newspaper, CFS support groups) | No: n=79  58% female | Yes: 4 physicians and 1  psychiatrist responsible for final decision about diagnosis of community sample; tertiary sample had psychiatric interview | Unclear |
| Linder, et al.,  200263 | Yes - CFS population with  fibromyalgia and lupus patients as controls | Unclear - recruited by study  physicians | Unclear: n=198  68% female | Unclear: few details about how  patients were assessed; excluded primary psychiatric disorders | Unclear |
| Tiev, et al.,  200362 | Unclear - case-control study;  recruitment not reported | Unclear (NR) | No: n=25  64% female | Unclear | Unclear |
| Watson, et al.,  201469 | Yes - had 3 groups including  some CFS subjects recruited from community/internet forums | Yes/unclear - CFS subjects  recruited from various sources including internet and some physician referral | Yes: n=691  % female: NR | Unclear: all subjects had  diagnosed by licensed physician; those with exclusionary diagnoses were removed. | Yes, reported  missing values and procedure for replacement. |

Table H1. Quality assessment table of diagnostic accuracy/concordance studies (continued)

| **Study, Year** | **Is the test adequately described and reproducible? Reliable and valid measurements?** | **Validation of test protocol in a second group?** | **Standard case definition?** | **Evaluate all patients for the outcome?** | **Were the outcome assessors blinded to the reference standard (CFS diagnosis)?** | **Quality rating** |
| --- | --- | --- | --- | --- | --- | --- |
| Jason, 201056 | Used Reeves 2005 criteria as  the diagnostic test | No | Yes: screening  questionnaire, then DSM- IV interview, medical history/exam and symptom inventory; all met CDC (Fukuda, 1994) criteria | Unclear | Unclear | Fair |
| Jason, 201165 | Yes: used standardized  measures | No | Yes: 2 physicians  independently rated each file using the CDC (Fukuda, 1994) criteria | Yes | Unclear | Fair |
| Linder, et al.,  200263 | Yes: used prospective  assessment of 26 symptoms taken from CFS, FMS and SLE diagnostic criteria | Yes: study sample  randomly divided into development and validation cohorts | Yes: Oxford (Sharpe,  1991) | Unclear | Unclear | Good |
| Tiev, et al.,  200362 | Yes: laboratory test for Rnase  L levels described in detail  No reliability/validity presented | No | Yes: CDC (Fukuda 1994) | Yes | Unclear | Poor |
| Watson, et al.,  201469 | Yes: unsupervised  thresholding algorithm | No | Yes: CDC (Fukuda,  1994), Canadian and ME- ICC | Yes: for those  included, all data were used. | Unclear | Fair |

**Abbreviations:** ACTH = adrenocorticotropic hormone; CDC= Centers for Disease Control and Prevention; CFS= chronic fatigue syndrome; DSM-IV= Diagnostic and Statistical Manual, fourth edition; FMS= fibromyalgia; n= sample size; NR= not reported; RCT= randomized, controlled trial; Rnase L= latent ribonuclease; SLE=systemic lupus erythematosus; UK= United Kingdom.