| Design | USPSTF quality rating criteria272 | NICE methodology checklists273 | The QUADAS tool274 |
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| Systematic reviews and meta-analyses | * Comprehensiveness of sources considered/search strategy used * Standard appraisal of included studies * Validity of conclusions * Recency and relevance are especially important for systematic reviews | * The study addresses an appropriate and clearly focused question * A description of the methodology used is included * The literature search is sufficiently rigorous to identify all the relevant studies * Study quality is assessed and taken into account * There are enough similarities between the studies selected to make combining them reasonable | Not applicable |
| Case-control studies | * Accurate ascertainment of cases * Nonbiased selection of cases/controls with exclusion criteria applied equally to both * Response rate * Diagnostic testing procedures applied equally to each group * Measurement of exposure accurate and applied equally to each group * Appropriate attention to potential confounding variables | * The study addresses an appropriate and clearly focused question * The cases and controls are taken from comparable populations * The same exclusion criteria are used for both cases and controls * What percentage of each group (cases and controls) participated in the study? * Comparison is made between participants and non-participants to establish their similarities or differences * Cases are clearly defined and differentiated from controls * Is it clearly established that controls are non-cases? * Measures have been taken to prevent knowledge of primary exposure influencing case ascertainment * Exposure status is measured in a standard, valid and reliable way * The main potential confounders are identified and taken into account in the design and analysis * Have confidence intervals been provided? | Not applicable |
| Randomized controlled trials (RCTs) | * Initial assembly of comparable groups employs adequate randomization, including first concealment and whether potential confounders were distributed equally among groups * Maintenance of comparable groups (includes attrition, crossovers, adherence, contamination) * Important differential loss to follow-up or overall high loss to follow-up * Measurements: equal, reliable, and valid (includes masking of outcome assessment) * Clear definition of the interventions * All important outcomes considered | * The study addresses an appropriate and clearly focused question * The assignment of subjects to treatment groups is randomized * An adequate concealment method is used * Subjects and investigators are kept ‘blind’ about treatment allocation * The treatment and control groups are similar at the start of the trial * The only difference between groups is the treatment under investigation * All relevant outcomes are measured in a standard, valid and reliable way * What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed? * All the subjects are analyzed in the groups to which they were randomly allocated (often referred to as intention-to-treat analysis) * Where the study is carried out at more than one site, results are comparable for all sites | Not applicable |
| Cohort studies | * Initial assembly of comparable groups employs consideration of potential confounders with either restriction or measurement for adjustment in the analysis; consideration of inception cohorts * Maintenance of comparable groups (includes attrition, crossovers, adherence, contamination) * Important differential loss to follow-up or overall high loss to follow-up * Measurements: equal, reliable, and valid (includes masking of outcome assessment) * Clear definition of the interventions * All important outcomes considered | * The study addresses an appropriate and clearly focused question * The two groups being studied are selected from source populations that are comparable in all respects other than the factor under investigation * The study indicates how many of the people asked to take part did so, in each of the groups being studied * The likelihood that some eligible subjects might have the outcome at the time of enrollment is assessed and taken into account in the analysis * What percentage of individuals or clusters recruited into each arm of the study dropped out before the study was completed? * Comparison is made between full participants and those lost to follow-up, by exposure status * The outcomes are clearly defined * The assessment of outcome is made blind to exposure status * Where blinding was not possible, there is some recognition that knowledge of exposure status could have influenced the assessment of outcome * The measure of assessment of exposure is reliable * Evidence from other sources is used to demonstrate that the method of outcome assessment is valid and reliable * Exposure level or prognostic factor is assessed more than once * The main potential confounders are identified and taken into account in the design and analysis * Have confidence intervals been provided? | Not applicable |
| Diagnostic accuracy studies | * Screening test relevant, available for primary care, adequately described * Study uses a credible reference standard, performed regardless of test results * Reference standard interpreted independently of screening test * Handles indeterminate result in a reasonable manner * Spectrum of patients included in study * Sample size * Administration of reliable screening test | * The nature of the test being studied is clearly specified * The test is compared with an appropriate gold standard * Where no gold standard exists, a validated reference standard is used as a comparator * Patients for testing are selected either as a consecutive series or randomly, from a clearly defined study population * The test and gold standard are measured independently (blind) of each other * The test and gold standard are applied as close together in time as possible * Results are reported for all patients that are entered into the study * A pre-diagnosis is made and reported | * The spectrum of patients are representative of the patients who will receive the test in practice * Selection criteria are clearly described * The reference standard is likely to correctly classify the target condition * The time period between the reference standard and the index test is short enough to be reasonably sure that the target condition did not change between the two tests * The whole sample or a random selection of the sample receives verification using a reference standard of diagnosis * Patients receive the same reference standard regardless of the index test result * The reference standard is independent of the index test * The execution of the index test is described in sufficient detail to permit replication of the test * The execution of the reference standard is described in sufficient detail to permit its replication * The index test results are interpreted without knowledge of the results of the reference standard * The reference standard results are interpreted without knowledge of the results of the index test * The same clinical data is available when test results are interpreted as would be available when the test is used in practice * Uninterpretable/ intermediate test results are reported * Withdrawals from the study are explained |