**Table S2. Quality assessment form and decision rules to assess included studies**

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| Item  | Descriptions  | Scoring a |
| Blind final assessor | Assessors measured RTUS variables and reference standards independently of each other, or, if not, it was likely that knowledge of one variable did not bias measurements of the other. | Yes, No or Not available. Yes if the paper states that the outcome assessor was blind to prognostic variables or reports a method that minimized opportunity for bias. |
| Data for at least 80% of the cohort reported | At least 80% of subjects assessed using RTUS were assessed on the reference standard. | Yes, No or Not available.  |
| Inception cohort | The inception cohort was typical of those on whom the test would typically be conducted and all eligible patients were invited to participate in the study (random selection or consecutive cases).  | Yes, No or Not available. Yes if the report states that consecutive eligible patients were invited to participate in the study, or were randomly selected. |
| Assessment methods defined  | Assessment using RTUS and the reference standard was defined in a way that enabled replication. | Yes, No or Not available. Yes if a defined method for measurement and patient positioning was reported and could be replicated from the description. |
| Adequate detail reported | Data was reported that allows the relationship between measures of RTUS and the reference standard to be statistically defined. | Yes, No or Not available. Acceptable data would be the correlation between RTUS and the reference standard or data that enables its calculation. |
| Timeframe | Measurements were taken for both RTUS and the comparison standard over a period where it was unlikely that real change would have occurred in the muscle size. | Yes, No or Not available. Yes if the report specifically states that the RTUS and the comparison measurements were taken over a short timeframe, or if not, the description of the methodology implied a short timeframe. |
| Muscle state | During RTUS scanning patients were clearly instructed on the required muscle activation (contracting versus relaxing the muscle). | Yes, No or Not available. Yes if the patients were specifically instructed to either relax or contract the muscle of interest during the RTUS scan. |
| RTUS scanning point | The RTUS scanning point is described in a way that enables relocation of that point during a follow-up scan, or that enables replication by an independent researcher. | Yes, No or Not available.  |
| RTUS contact pressure | The contact pressure of the transducer on the skin surface has been considered and a procedure was reported to minimize the pressure. | Yes, No or Not available.  |
| Transducer positioning | The US transducer was placed at perpendicular angles (90 degrees) to the muscle surface being studied during the assessment. | Yes, No or Not available.  |

Scoring: Yes=1, No=0, or Not available=0.