

Checklist for critical reading of clinical documentation and scientific articles

Reading scientific articles and clinical documentation is essentially about being able to judge how reliable the results are and what they mean for you in your clinical work. In order for a scientific article to be deemed credible, certain data must be present. Here is a list of important and necessary information to look for:

- Purpose of the study**
Why was the study performed? The purpose should be compared with the conclusion.
- Type of study**
Is it a prospective or retrospective study? Generally, prospective studies are better, since the criteria are set before the patients are treated.
- Number of clinics involved**
How many clinics are involved? More than one clinic should be involved in the study, in order to judge the possibility of repeated results.
- Number of patients**
How many patients are included in the study?
- Inclusion and exclusion criteria**
What are the criteria for a patient to be included in or excluded from the study?
- Number of implants for upper and lower jaws respectively**
The number of implants should always be listed separately for upper and lower jaws, including failure statistics, as the treatment prognosis is different in each jaw. An additional advantage is if you can see the difference between anterior and posterior treatment.
- Follow-up**
How many implants have been followed for how long? When did the follow-up start; at installation or at loading?
- Indications**
Which indications are covered in the study; single, partial or full bridge? If it is a full bridge, is it fixed prosthesis or overdenture?
- Loading**
When were the implants loaded (immediate, early or conventional loading)?
- Implants lost**
A study should include both the number of implants and number of patients not accounted for during the entire follow-up period. It should also include the reasons for drop-outs.
- Success criteria**
What is a successful result according to the authors? It is important that the success criteria are clearly described.
- Other important parameters**
How were the results verified? Was x-ray used when determining bone levels? How were bone levels measured? Was the bridge removed to control implant stability?
- Statistical analysis of success and failure rates**
A study should include statistical facts and figures to reveal how many implants were actually followed up and for how long. It should also include a "worst-case" analysis, meaning a calculated failure rate assuming that all drop-outs were lost implants.
- Complications**
If there are complications or drop-outs, they should be clearly described.
- Conclusion**
The conclusion should be compared with the purpose of the study. Was it fulfilled? What does the study actually tell you? How does the result affect your daily clinical work?