Introduction
The number of practice guidelines in Medicine and Dentistry has increased dramatically during the last two decades (Fig 1). The FDI World Dental Federation maintains on their website a database of guidelines in Dentistry(1). The database contains currently about 450 guidelines. Concern has been raised that some of these are not evidence-based or reflect best practice. Different systems for appraisal of clinical guidelines have emerged, to facilitate the identification of the differences between evidence based guidelines, good practice guidelines by consensus, guidelines produced by individual experts, and standards. The aim of this study was to critically appraise the quality of clinical guidelines in dentistry.

Materials & Methods
20 clinical guidelines were randomly selected from the FDI World Dental Federation database of guidelines (1). The guidelines were appraised according to the AGREE Appraisal Instrument (2) by a single appraiser.

**AGREE APPRAISAL INSTRUMENT**

<table>
<thead>
<tr>
<th>SCOPE AND PURPOSE</th>
<th>1. The overall objective(s) of the guideline is (are) specifically described.</th>
<th>2. The question(s) covered by the guideline is (are) specifically described.</th>
<th>3. The patients to whom the guideline is meant to apply are specifically described.</th>
<th>4. The guideline development group includes individuals from all the relevant professional groups.</th>
<th>5. The patients’ views and preferences have been sought.</th>
<th>6. The target users of the guideline are clearly defined.</th>
<th>7. The guideline has been piloted among target users.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAKEHOLDER INVOLVEMENT</td>
<td>8. Systematic methods were used to search for evidence.</td>
<td>9. The criteria for selecting the evidence are clearly described.</td>
<td>10. The methods used for formulating the recommendations are clearly described.</td>
<td>11. The health benefits, side effects and risks have been considered in formulating the recommendations.</td>
<td>12. There is an explicit link between the recommendations and the supporting evidence.</td>
<td>13. The guideline has been externally reviewed by experts prior to its publication.</td>
<td>14. A procedure for updating the guideline is provided.</td>
</tr>
<tr>
<td>RIGOUR OF DEVELOPMENT</td>
<td>15. The recommendations are specific and unambiguous.</td>
<td>16. The different options for managing the condition are clearly presented.</td>
<td>17. Key recommendations are easily identifiable.</td>
<td>18. The guideline is supported with tools for application.</td>
<td>19. Systematic methods were used to search for evidence.</td>
<td>20. The results of the study are presented and discussed.</td>
<td>21. The conclusions of the study are presented and discussed.</td>
</tr>
<tr>
<td>CLARITY AND PRESENTATION</td>
<td>22. The guideline is editorially independent from the funding body.</td>
<td>23. Conflicts of interest of guideline development members have been recorded.</td>
<td>24. The recommendations were made in a way that is clear and unambiguous.</td>
<td>25. The recommendations were made in a way that is clear and unambiguous.</td>
<td>26. The language in the guideline is accessible to users at the level of the target user group.</td>
<td>27. The guideline is supported with tools for application.</td>
<td>28. The conclusions of the study are presented and discussed.</td>
</tr>
<tr>
<td>APPLICABILITY</td>
<td>29. The potential organisational barriers in applying the recommendations have been discussed.</td>
<td>30. The potential cost implications of applying the recommendations have been considered.</td>
<td>31. The guideline presents key review criteria for monitoring and/or audit purposes.</td>
<td>32. The guideline is editorially independent from the funding body.</td>
<td>33. The patients’ views and preferences have been sought.</td>
<td>34. The guideline has been piloted among target users.</td>
<td>35. The guideline is supported with tools for application.</td>
</tr>
<tr>
<td>EDITORIAL INDEPENDENCE</td>
<td>36. The potential organisational barriers in applying the recommendations have been discussed.</td>
<td>37. The potential cost implications of applying the recommendations have been considered.</td>
<td>38. The guideline presents key review criteria for monitoring and/or audit purposes.</td>
<td>39. The guideline is editorially independent from the funding body.</td>
<td>40. The patients’ views and preferences have been sought.</td>
<td>41. The guideline has been piloted among target users.</td>
<td>42. The guideline is supported with tools for application.</td>
</tr>
</tbody>
</table>

**RESULTS**

- High scores were obtained for the domains: Scope and purpose & Clarity and presentation
- Moderate scores were obtained for the domains: Stakeholder involvement & Rigour of development
- Low scores were obtained for: Applicability and Editorial independence
- Four of the evaluated guidelines could be strongly recommended for use, three could be recommended at no as many as 13 should not be recommended.
- Particularly the criteria lack of independence from sponsoring body and conflict of interest scored low.
- Very few of the guidelines contained explicit links to the scientific evidence.
- The strength of recommendations were seldom presented.

**DISCUSSION**

- It is recommended that at least two assessors appraise guidelines independently to increase the reliability of the evaluation. It is acknowledged that this introduce a risk of bias into the appraisal.
- Several other systems for appraising guidelines exists. SIGN (Scotland), EBM (Sackett et al.), New Zealand Guidelines Group and the Guidelines International.net. These systems would not necessarily have given the same evaluation outcomes as with the AGREE criteria. The AGREE is an appraisal instrument for clinical guidelines to be developed and tested internationally. It is translated into 7 European languages & Japanese and is formally recommended by the Council of Europe and adopted by WHO to assess their guidelines.
- The need to focus on independency from funding body and conflict of interest issues amongst guidelines developers need to be addressed in guideline developments. This applies both to commercial and to governmental interests.

**CONCLUSION**

1. Many existing clinical guidelines in dentistry are inadequate according to current consensus on the optimal quality of clinical practice guidelines.
2. Practitioners should be guided towards good, well-designed guidelines by national or international bodies, such as the FDI World Dental Federation.

References
2. AGREE Instrument (Appraisal of Guidelines for REsearch & Evaluation) www.agreecollaboration.org