Title **Prophylactic Removal of Wisdom Teeth**

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Aim

To assess the scientific evidence on prophylactic removal of impacted wisdom teeth as regards the incidence of surgical complications associated with prophylactic removal, the morbidity associated with retention, quality of life, and economic aspects.

Conclusions and results

No randomized controlled trials were identified that compared outcomes of early removal versus deliberate retention of asymptomatic third molars. The report includes 11 patient series, 5 cohort studies, 2 case-controlled studies, 6 cross-sectional studies and 1 decision analysis. Studies on complications related to prophylactic removal report a relatively high prevalence of deep residual periodontal defects at the distal surface of the mandibular second molar after surgical extraction of the adjacent impacted third molar. However, there was a low incidence of pain, permanent nerve damage (more than 6 months) on inferior alveolar and lingual nerve, fractures, or serious infection. Studies on complications related to retention report a relatively high incidence of pericoronitis and caries, with higher incidence of periocoronitis related to partially erupted third molars compared to fully retained. Only low incidence of root resorption of second molar teeth, cysts, and tumors was found. This report is based on evidence from studies that use small selected patient groups. Hence, it is difficult to make conclusions and recommendations. Dentists in Norway recommend prophylactic removal of third molars when the future likelihood of third molars causing problems is high, and the incidence of postoperative complications is low. This includes partially erupted wisdom teeth. Removal of asymptomatic, fully retained wisdom teeth is not recommended. Since the report is based on less-than-optimal studies, the patient's preference needs to be decisive.

Methods

The report is based on a systematic review from UK (NCCHTA, 2000) and guidelines from NICE and SIGN in addition to an updated systematic review on studies published from 1999 to May 2003. Norwegian /Scandinavian practice was also included in a search of studies from 1980 to May 2003. The following databases were searched: the Cochrane Controlled Trial Register, Database of Abstracts of reviews of Effectiveness (DARE), International Network of Agencies for Health Technology Assessment (INAHTA) database, MEDLINE, EMBASE, National Guideline Clearinghouse, PRODIGY Guidance, NICE (National Institute for Clinical Excellence), SIGN (Scottish Intercollegiate Guidelines Network), OHE Economic Evaluations Database, and NHS Economic Evaluation Database. The literature search for primary literature identified 1109 abstracts that were reviewed, 145 possibly relevant studies were assessed, and 25 studies were included in the report. Ten studies were included on Norwegian/Scandinavian practice.

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