

## Postoperative bleeding after tonsil surgery

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EDITORIAL

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### The risk of serious bleeding after tonsil surgery is related to the surgical method and technique.

Sverre Morten Zahl presents, in the Journal of the Norwegian Medical Association, an overview of bleeding complications after tonsil surgery at Ålesund Hospital (1). It is gratifying to read that the complication rate is very low and that few patients require readmission or reoperation.

The Norwegian Tonsil Surgery Register was established in 2017 as a national quality register. Its purpose is to safeguard the quality of treatment in Norway and to contribute to research. The team responsible for the Register collaborate closely with their counterparts at other Nordic tonsil registers, publishing articles together and coordinating plans for the future management of the registers (2).

In 2019, reporting to national clinical quality registers became mandatory as a result of new regulations. Anyone who undergoes tonsil surgery in Norway must now be asked if they wish to participate in the Norwegian Tonsil Surgery Register. Coverage – i.e. what proportion of those who undergo surgery are included in a register – of over 80 % is considered very good; in 2019, coverage in the Norwegian Tonsil Surgery Register was 65 %. Although higher coverage is desirable, the proportion of readmissions owing to bleeding is consistent with data from the Norwegian Patient Register.

The Norwegian Tonsil Surgery Register has been in operation for four years, and inclusion has increased rapidly. Everyone who agrees to participate is sent an electronic questionnaire via helsenorge.no or other digital channels. Patients or their relatives report complications such as bleeding, pain and infection directly to the register 30 days after surgery. Patients also indicate whether they are satisfied with the outcome after six months. In 2019, a total of 8 572 tonsil surgeries were performed in Norway, of which 5 587 were recorded in the Norwegian Tonsil Surgery Register.

In 2019, the percentage of patients readmitted to Norwegian hospitals because of secondary haemorrhage averaged 7.8 %. The annual report shows that bleeding is less common in children than in adults (3.9 % vs. 10.3 %), and more common in men than in women (16.5 % vs. 7.7 %) [\(3\)](#). Similar findings are seen in international studies [\(4\)](#). The surgical technique used for tonsillectomy affects the proportion of patients who require readmission due to postoperative bleeding. Those who operate using 'cold' instruments have fewer readmissions than those who operate with 'hot' instruments such as diathermy scissors, bipolar diathermy forceps and radiofrequency ablation. The choice of surgical method is also important: tonsillotomy gives less risk of bleeding than tonsillectomy [\(5, 6\)](#). Zahl shows that at Ålesund Hospital, the proportion of patients with secondary haemorrhage is well below the national average, with only 1.4 % of patients readmitted, while 2.2 % of patients experienced primary haemorrhage within 24 hours of surgery.

*«The Norwegian Tonsil Surgery Register can help ensure that all hospitals and surgeons in Norway receive direct feedback from patients about complications»*

Deaths following tonsil surgery have occurred in Norway and in other Nordic countries [\(7\)](#). It is therefore important to reduce the risk of postoperative bleeding. The Norwegian Tonsil Surgery Register has conducted a quality improvement project, in which hospitals with a high proportion of readmissions due to bleeding in 2017 were invited to participate. In connection with the project, video recordings were made of tonsil surgeries performed by otorhinolaryngologists from hospitals with low readmission rates [\(8\)](#). Hospitals with high readmission rates were then given access to the videos for use in in-house training of surgeons. By the end of the project, the proportion of readmissions had decreased from an average of 14 % in 2017 to 6 % in 2020 [\(9\)](#). Comparable results were observed in Sweden following a similar intervention [\(10\)](#).

The Norwegian Tonsil Surgery Register helps ensure that all hospitals and surgeons in Norway receive direct feedback from patients about complications. This gives surgeons the opportunity to continuously monitor their numbers and to make improvements if needed. In this way, it is to be hoped that the complication rate can be minimised over time. Tonsil surgery is a very effective treatment for patients suffering from recurrent tonsillitis, chronic tonsillitis or tonsillar hypertrophy. In 2019, 92 % of patients who completed the questionnaire reported improvement in these conditions [\(3\)](#).

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