

# Evaluation of 32 priority guidelines – a system-wide intervention on waiting time reduction for elective treatment in the Norwegian specialist health service

This is an excerpt from the full technical report, which is written in Norwegian.

The excerpt provides the report's main messages in English

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Report

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We would like to thank all contributors for their expertise in this project. Norwegian Knowledge Centre for the Health Services assumes final responsibility for the content of this report.

Norwegian Knowledge Centre for the Health Services  
Oslo, June 2015

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# Key messages (English)

Different measures to reduce waiting time for elective treatment in the Norwegian specialist health service have been in place. In the period from 2008 to 2010 the Norwegian directorate for health introduced 32 priority guidelines to give guided priority to either an outpatient consultation or treatment for 398 conditions, and a specified maximum waiting time. The priority guidelines were developed by 32 national groups of experts under the supervision of the Norwegian Directorate for Health. The national groups of experts defined the relevant conditions by clinical criteria and not linked to ICD-10 codes (ICD = International Codes of Diseases). In the administrative dataset from the Norwegian Patient registry (NPR) ICD-10 codes are used and the expert groups assisted in identifying the conditions by ICD-10 codes. These data made it possible to perform before and after analyses, the so-called interrupted time series analyses. A limitation was changes in coding practice and the reduced level of registration in 2008 on the new reporting format for data from hospitals to NPR.

- In all 282 of 398 conditions of the priority guidelines are analysed. Several conditions lack defined codes, and for the guideline for *Child diseases* a limited number of conditions were assessed.
- System change
  - Two guidelines showed a significant reduction in waiting times for all conditions included; *Neuro surgery* and *Head and neck medicine and surgery*
  - For 21 guidelines there was seen a varying degree of compliance with the guidelines
  - For six guidelines there were no significant changes in waiting time at the time of the introduction of the guidelines
  - Some non-prioritized conditions showed positive changes
  - Three guidelines were not analysed due to low numbers in 2008–2009
- Breach of maximum waiting times
  - In 2012 19 conditions had 50% or more extended waiting times per referral.
  - Out of 183 conditions 149 had a significant decreasing trend during the years 2010–2012, whilst 7 showed an increasing trend
- Harmonization between health regions

- The analyses show differences in waiting time between the four hospital regions by 81% of the 234 conditions tested

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# Executive summary (English)

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## Background

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In the period 2008–2010 the Norwegian Directorate for Health introduced 32 priority guidelines for elective treatment in the specialist health service. This report gives the results of the analyses of the effect of the introduction and use of these guidelines on the waiting time for outpatient consultation or start of treatment for the specified conditions. The priority was graded according to referral information. The evaluation is based on a commission from the Norwegian Directorate for Health.

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## Objective

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The directorate commissioned an evaluation of the effect of the introduction of the 32 priority guidelines for specific conditions eligible for elective treatment in the specialist health service. The background for developing and introducing the guidelines was to give priority to conditions according to degree of severity, reduced health status of patients, and to reduce differences in waiting time across the specialist health service. It is considered to be a system-wide intervention.

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## Method

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Administrative data from the Norwegian Patient Registry (NPR) was used for the analyses. The analyses cover the period 2008–2012. Each stay is counted by using the ICD-10 codes (ICD = International Codes of Diseases) or defining codes for treatment procedures registered at discharge. Members of the expert groups assisted in defining the ICD-10 codes and the procedure codes as the priority referred to information in the referrals. A limitation has been changes in coding practice and the reduced number of hospital stays recorded on the new NPR-format. A sub-study to validate referral information to the discharge diagnosis has been performed for 1854 medical journals in four major hospitals for the years 2008–2009.

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## **Results**

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The development in waiting time has varied between the guidelines, but there has been definite and substantial reductions in breach of waiting-time limits for a large number of conditions. Former increased trends have reversed, but also earlier reduction has subsided or stopped. None or little change was observed for a few conditions. A number of conditions without priority showed simultaneous reduction in waiting time.

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## **Discussion**

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The before-after analyses, the interrupted time series analyses, can link changes in waiting time in the period of 2008–2012 to the introduction of the 32 priority guidelines. Furthermore, the results show differences between major regional hospitals also after the introduction. A number of underlying differences in staff and other resources can most likely explain some of the differences. The intention by the health authorities is to reduce differences in waiting time and the hospitals are therefore obliged to follow these guidelines. The results of this evaluation give information about differences that can be addressed in order to achieve a more equally accessible elective hospital treatment in Norway. The Directorate has initiated a revision of the guidelines due to be published in 2015.

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## **Conclusion**

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The priority guidelines have influenced and reduced waiting time for a high number of the conditions included in the guidelines. For some conditions the proportion of stays exceeding the limit has been reduced, the level is still considered to be high. To understand the causal mechanisms on the development of waiting time for elective treatment, additional administrative and economic data are needed for an improved causal explanation.