

Patients with heart disease or suspected heart disease are assessed in hospital or by heart specialists in private practice. Typical examinations used to diagnose heart disease include electrocardiography registration carried out while the patient is using an exercise bike (exercise ECG), ultrasound examination of the heart (echocardiography) and long-term monitoring of the patient's heart rhythm (long-term ECG).

Background

Exercise ECG is a standard examination used for coronary heart disease in a stable phase. Under new guidelines from 2014, CT examination of the heart can be an alternative to exercise ECG.

Echocardiography is a valuable examination in cases of suspected heart failure.

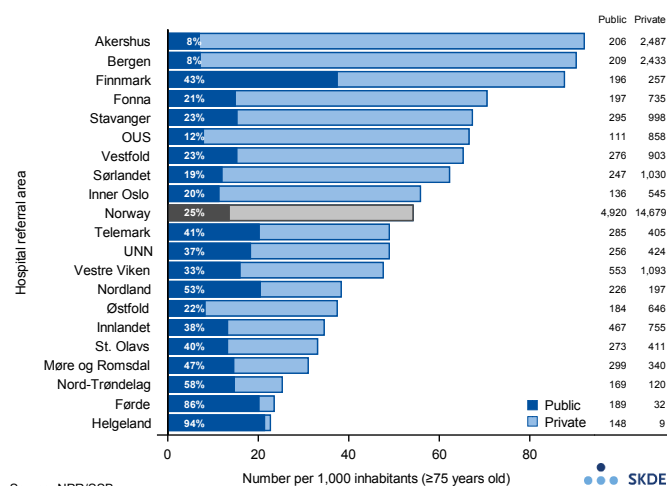
Long-term ECG, where a recorder connected to electrodes on the patient's chest registers any heart rhythm abnormalities for a period of 24 hours or more, is often used before patients have a pacemaker implanted to treat arrhythmia.

Results

Each year, nearly 20,000 outpatient exercise ECG examinations are carried out on the elderly, of which 25% take place at public hospitals. The residents of Akershus hospital referral area undergo such examinations four times as often as the residents of Helgeland. The use of exercise ECG does not correlate with the patient rates for admission for myocardial infarction. Variations in the use of CT examination of the heart as an alternative assessment method have not been mapped, and could explain part of the variation.

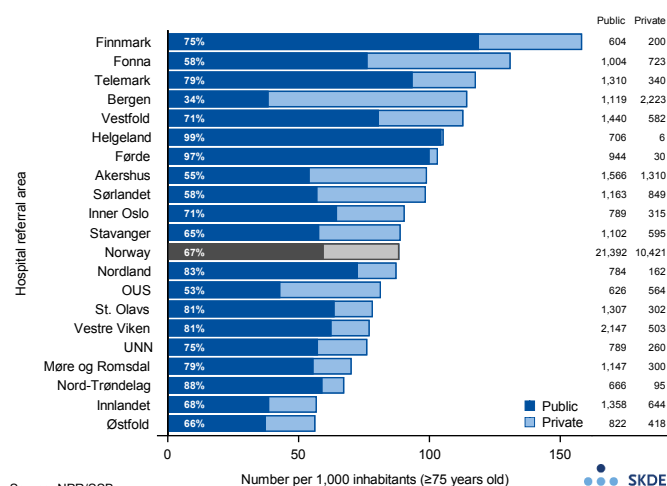
Each year, nearly 32,000 outpatient echocardiography examinations are carried out on elderly patients, two-thirds of which take place at public hospitals. Residents of Fonna hospital area are assessed nearly five times as often as residents of the Finnmark area as for residents in Østfold. The use of echocardiography does not correlate with admissions for heart failure.

Each year, around 9,000 long-term ECG examinations are carried out on elderly patients, of which 72% take place at public hospitals. Residents of Fonna hospital area are assessed nearly five times as often as residents of the St. Olavs area. There is a clear correlation between pacemaker implantations and the use of long-term ECG.



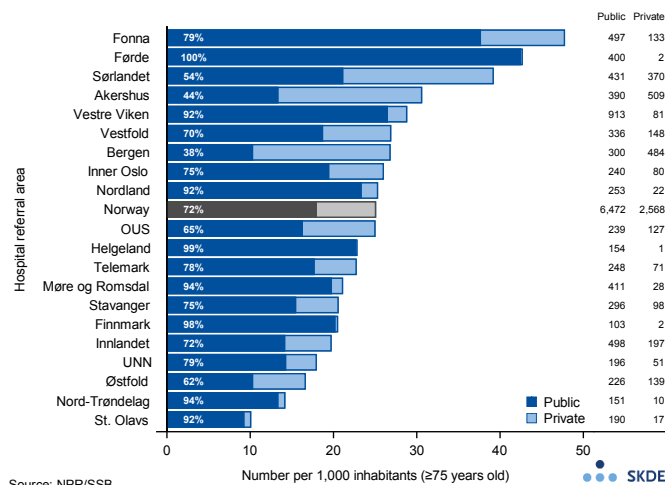
Source: NPR/SSB

Outpatient exercise ECG, number per 1,000 population, adjusted for gender and age, broken down by public and private service providers. Av. number public and private per year.



Source: NPR/SSB

Outpatient echocardiography examinations, number per 1,000 population adjusted for gender and age, broken down by public and private service providers. Av. number public and private per year.



Source: NPR/SSB

Outpatient long-term ECG, number per 1,000 population, adjusted for gender and age, broken down by public and private service providers. Av. number public and private per year.

Comments

There is great variation between hospital referral areas in outpatient examinations using exercise ECG, echocardiography and long-term ECG. It is not the same hospital referral areas that have high and low usage rates for the different examinations, but Central Norway has consistently low use. This variation cannot be explained by known geographical differences in morbidity. These examinations are only carried out by the specialist health service, which indicates that access to these services is not equitable and depends on where the patient lives.