



National Centre for Epilepsy

Division of Clinical Neuroscience
Oslo University Hospital



NATIONAL CENTRE FOR EPILEPSY (SSE)

In Norway, highly specialist treatment of epilepsy is centralised at SSE, which admits patients from all over the country for assessment and treatment. SSE has a national service for patients with complex epilepsy who do not obtain sufficient benefit from the usual drug treatments and/or where the epilepsy causes psychosocial or cognitive difficulties or other challenges.

Who can be admitted?

Most people referred to SSE have not achieved satisfactory seizure control from medication. Most have been examined at their local neurology department or paediatric ward and have been referred to SSE from there.

At SSE, patients receive further assessment and treatment. People with an unresolved seizure situation can be referred to SSE for diagnostic clarification. Some patients who are examined do not have epilepsy.

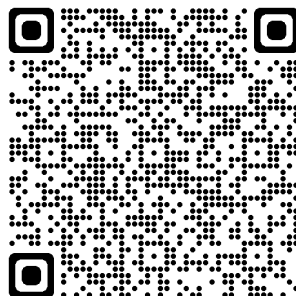
The goal of hospitalization at SSE is to ensure that the diagnosis is correct, and that treatment for the patients' type of epilepsy and seizures is optimised.



SSE has Norway's largest Epilepsy Monitoring Unit, with 10 beds for EEG assessment. The Section for Clinical Neurophysiology (KNF) is an important part of surgical investigations, in collaboration with the Department of Neurosurgery at OUS. Photo: Oslo University Hospital (OUS).

What happens before, during, and after treatment?

You can find an overview (in Norwegian) of the treatments offered on our homepage: oslo-universitetssykehus.no/sse or scan the QR-code with your cell-phone camera.



Choose the treatment of interest and select the appropriate treatment location; for example, Section for children and adolescents with epilepsy (Seksjon for barn og ungdom med epilepsi) and read what happens before, during, and after the treatment and practical information. You could also try a Google search using Norwegian search terms: "PNES OUS", "epilepsi ketogen diett" etc.

Medical examination and treatment

Our goal is to reduce the frequency of seizures, or to achieve seizure freedom, with the fewest possible side effects from seizure-prevention drugs. The seizure

situation is mapped in order to best assess the effects of epilepsy medication.

Interdisciplinary investigation

If necessary, and after assessment, our interdisciplinary team conducts a broad assessment. This may be crucial for



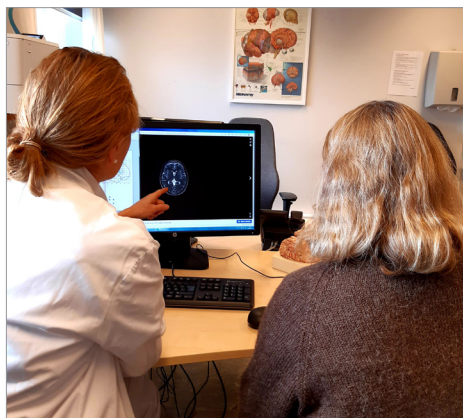
Children below school age are observed at the Special Education Observation Unit. Photo: Shutterstock.

successful treatment for some patients. In addition, the consequences of epilepsy on work, school, and social functioning are investigated. Children of school age, and who are hospitalized for more than four days, receive teaching at Solberg School, where the children are observed and mapped. The teachers are members of the interdisciplinary team and participate in the investigation.

Investigation for epilepsy surgery (surgical examination)

Between 20-30% of patients do not achieve freedom from seizures by treatment with medication. Some may be helped by epilepsy surgery. SSE has a national treat-

ment service for investigation of patients who are under assessment for epilepsy surgery. Investigation, assessment, and surgery are conducted in close collaboration between SSE and the Department of Neurosurgery. Patients are followed up at SSE for ten years after surgery.



People who may be suitable for epilepsy surgery undergo a comprehensive assessment and a thorough risk-benefit analysis. Photo: Oslo University Hospital

Vagus nerve stimulation (VNS)

If seizure control is not achieved by medication, and epilepsy surgery is not appropriate, VNS can be considered. This approach uses a small device that is implanted under the skin on the left side of the chest. The device is connected to the vagus nerve in the neck, which is stimulated to send regular weak electrical pulses to specific areas of the brain. These electrical pulses can reduce seizure severity, make them shorter, or interrupt them.

Ketogenic diet against epilepsy

The ketogenic diet (keto diet) is an established treatment that can be considered when epilepsy medications have not result

in the desired effect. This diet has been shown to be effective in many types of epilepsy, and is available as a treatment for both children and adults. In some rare diagnoses, such as GLUT1-deficiency syndrome, a ketogenic diet is the first treatment choice.

Psychogenic, non-epileptic seizures (PNES)

Some patients who are admitted to SSE with a difficult seizure situation do not actually have epilepsy. Some of these patients have PNES. At SSE, seizures are investigated both by EEG and seizure observation in the diagnosis of PNES. A follow-up stay is offered after diagnostic assessment. Further follow-up and treatment of PNES takes place at the patient's own local mental healthcare unit.

Treatment

- SSE has responsibility for the National Treatment Service for Epilepsy and Developmental Disabilities, as well as the Regional Competence Service for Epilepsy and Autism. Treatment takes place in a professional environment, where there is prolonged experience with people with complex needs.
- SSE collaborates with the health services in the patient's home municipality, as well as with their work, school, kindergarten, relatives, and loved ones.
- Our patient processes are adapted to the individual and have a life cycle perspective.
- Treatment at SSE is characterized by high professional standards and commitment to the patients.

During the stay, patients and relatives can be taught about epilepsy. After admission, our health personnel transfer their expertise to care homes, schools, and kindergartens throughout the country. SSE arranges courses for healthcare professionals and relatives. We have made films about seizure types and developed e-learning courses for patients, relatives, and health personell and other professionals.

- Read more here:
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