

# POSTER FRA NORDSJÆLLANDS HOSPITAL - HILLERØD

En række omhyggelige tests indenfor både hospitals- og plejesektoren er siden 2015 blevet gennemført med MusiCure puden. Senest i 2021 har 4 hospitaler uafhængigt af hinanden opnået tilsvarende positive resultater med puden og behandling af patienter med delir.



## Music as Medicine\* as a complementary treatment method for hospital patients with delirium

Camilla Engelstoft Hess, Clinical nursing specialist, MSc (Nursing)  
Department of Nephrology and Endocrinology – H0842, North Zealand Hospital, Hillerød Denmark

### Background and Aim

Delirium is a commonly occurring, serious neuropsychiatric complication associated with acute somatic illness. Delirium is most common in patients who are elderly, have dementia or are chronically ill. The condition can be extremely distressing for the patient and may cause some patients to act aggressively or experience anxiety. North Zealand Hospital's department of Nephrology and Endocrinology, H0842, treat a large number of patients with delirium.

An alternative to medical treatment could be a non-pharmacological intervention in the form of music. Several Danish and international studies suggest that music from MusiCure and the specially developed MusiCure Pillow\*, can be successfully used in the treatment of delirium.

This quality improvement project was to test the efficacy of the MusiCure pillows as a complementary treatment method for patients, who become delirious during hospitalisation. The primary goal was to replace medical treatment for delirium with music. The secondary goal of the project was to make the patients feel more secure, and to reduce stress, side effects, mental illness and mortality resulting from delirium.



### Design and Procedure

The retrospective design of the project involved gathering six months of data on the ward's use of extra 1:1 carers and Serenase and Stesolid medication. The prospective part of the project consisted of a four-month intervention using MusiCure pillows. The aim of this approach was to test and detect any issues or barriers, so that it was possible to modify and revise the intervention before implementation.

The intervention was carried out at the Department of Nephrology and Endocrinology, H0842. The intervention started when an inpatient became delirious. Patients who became delirious were identified and CAM screening was performed. If the patient had a positive CAM score, they were included in the study with the music pillow. The intervention was carried out in the patient's room, where they lay in their bed. The music played for over an hour and often repeated for several hours or days, and the nursing staff completed the attached registration form to measure the effect of the music.

### Method and Results

The quality improvement project was based on a scientific hermeneutical approach. This is reflected in the project's combination of qualitative and quantitative data collection. The project's quantitative component consisted of collecting data on patients' behaviour before, during and after the music, and any use of sedatives. The ward's use of extra 1:1 carers was also registered. The music pillows were tested on 13 patients over a period of four months. The results from the registration forms showed that patients recovered from delirium more quickly, when they listened to the music:

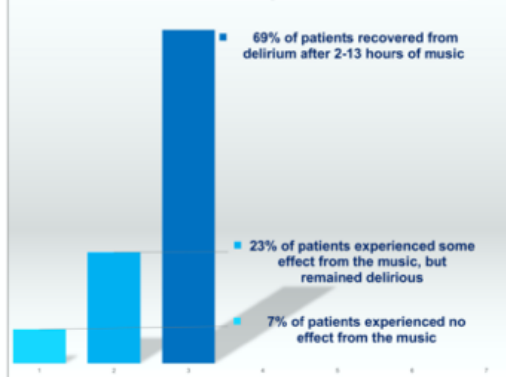
- 7% of patients experienced no effect from the music
- 23% of patients experienced some effect from the music, but remained delirious
- 69% of patients recovered from delirium after 2-13 hours of music.

33% of these patients received Serenase in connection with their delirium. The results also showed that no extra 1:1 carers were used during the intervention period. In the period prior to the intervention, an average of 11.5 extra 1:1 carers per month were used in the ward. A review of the ward's use of Serenase and Stesolid also showed that during the intervention period, 0.12 less packets of Serenase and 0.62 less packets of Stesolid were used compared to the remaining months in 2019.

### MusiCure Pillow

The MusiCure pillow is an ergonomic, memory-foam pillow with a built-in sound system. The pillow comes with a rechargeable MP3 player loaded with one hour of specially designed music. Studies have shown that it increases the body's oxytocin level and lowers the cortisol level. The pillow's cover can be easily cleaned using sanitiser wipes. The pillow is also CE marked and EU approved as a class 1 medical device.

### The efficacy of MusiCure Pillows as a complementary treatment method for delirious patients



### Conclusion

The aim of the quality improvement project was to test the efficacy of MusiCure pillows as a complementary treatment method for delirious patients.

It was found that patients who received music and other non-pharmacological treatments recovered from delirium faster and needed less sedation. It can therefore be argued that the music pillows can beneficially be used as a first priority before any sedatives are used for the treatment of delirium. The use of the music pillows also resulted in there being no need for extra 1:1 carers when the patients were listening to the music. The ward's costs associated with the use of extra 1:1 carers were therefore much reduced during the intervention period.

After publication of the positive results with delirium patients from both Hvidovre and North Zealand Hospitals, a number of other Danish hospitals have introduced the same procedures with the MusiCure pillows to delirium patients, and achieved similar results.

\* 'Music as Medicine' is a part of the original MusiCure International Trademark.

## Sund komfortabel lytning

- Specielt designet ergonomisk pude
- I puden er indsat vores unikke højttalersystem af høj kvalitet
- Udviklet til at lindre stress, angst og uro, samt forbedre søvn og hvile
- Skabt til anvendelse på hospitaler, plejecentre, klinikker og institutioner
- MusiCure Pudens kræver ingen strømforbrug eller batterier
- Pudens leveres med specialsyet godkendt hygiejnebetæk og MP3 afspiller
- Musikken i puden er Niels Eje's evidensbaserede MusiCure
- Pudens er udviklet i Danmark af MusiCure in Healthcare ApS



MusiCure Pillow® is a CE approved Class 1 Medical Device.  
Manufactured by MusiCure in Healthcare ApS - Denmark. Catalogue no. GFO 20178



MusiCure in Healthcare ApS, Skodsborgvej 48-A 2830 Virum, Denmark  
Tel: +45 45854948 www.MusiCure.dk info@musicure.dk

MusiCure in Healthcare ApS, Skodsborgvej 48-A 2830 Virum, Denmark  
Tel: +45 45854948 www.MusiCure.dk info@musicure.dk

REGION

Nordsjællands  
Hospital

REGION North Zealand Hospital

## MUSICURE PUDEN – SPECIFIKATIONER OG ANVENDELSE

Specielt designet komfortabel skumpude med indbygget lydssystem i høj kvalitet. MusiCure Pudens er udviklet specielt til optimal oplevelse af den evidensbaserede MusiCure musik, og pudens kræver ingen form for strømforsyning eller batterier.

### ET REDSKAB TIL SUND LYTNING

Som et 'sundt' og behageligt alternativ til ørepropper eller hovedtelefoner er MusiCure Pillow blevet udviklet med anvendelse af kvalitetsmaterialer fra flere lande, og fremstillet af et team af professionelle producenter af medicinsk udstyr.

### FREMSTILLET SPECIELT TIL HOSPITALER OG PLEJESEKTOREN

MusiCure Pudens kan leveres med specialsyet hospitals-hygiejnebetræk, sammen med en MP3 afspiller, som indeholder 1 times specielt produceret MusiCure afslapningsprogram, klar til at blive afspillet i pudens. Det særlige 'Techmaflex' hospitals-hygiejnebetræk er fremstillet af materialer, som er godkendt af myndighederne til anvendelse på hospitaler og klinikker m.v.

### DIMENSIONER OG VÆGT

Pudens omfang = 50 x 30 x 10/7 cm.

Vægt: 870 g.

### FLERE FORMÅL MED MUSICURE PUDEN

- ✓ At tilbyde patienten beroligende musik gennem pudens, som afledende og lindrende behandling.
- ✓ At forbedre patienternes velbefindende, så de oplever tryk og afspænding.
- ✓ At reducere angst, smerter, stress eller andet ubehag, og gennem musik skabe fornyet motivation og inspiration.

### KONKRETE ANVENDELSESOMRÅDER

- ✓ Hvilesituationer før og efter undersøgelser/procedurer.
- ✓ Lindring til patienter med stress, angst, uro og smerter
- ✓ Hjælp til at falde til ro og i søvn.
- ✓ Skabe "positiv distraktion", som kan formidle motivation og livsvilje

Siden 2000 har uafhængige forskere og professionelle behandlere gennemført en række medicinske studier med MusiCure. Resultaterne af disse studier og kontrollerede forsøg findes i dag publiceret i en række internationale medicinske tidsskrifter, bl.a.: Heart & Lung – The journal of Acute and Critical Care, European journal of Cardiovascular Nursing, Intensive and Critical Care Nursing, Pediatric Anesthesia m.fl.



## MUSICURE PUDEN BLIVER I DAG ANVENDT OG TESTET MED SUCCES INDENFOR FLERE OMRÅDER I DANMARK OG UDLANDET

### HOSPITALSAFDELINGER

- Psykiatri
- Onkologi
- Dagkirurgi og opvågning
- Hjerterprocedurer
- Delir/delirium
- Intensiv pleje (ICU)
- Dialyse
- Epilepsi behandling
- Lungemedicin
- Koloskopi
- Smertebehandling
- Screeningsprocedurer

### PLEJESEKTOREN OG ANDRE OMRÅDER

- Ældreplejen og demens/Alzheimers patienter
- Ergoterapi for børn og unge
- Dansk Flygtningehjælp (traumatiserede flygtninge)
- Rehabiliteringscenter for torturofre
- Mental træning for soldater m.m. (CMR) Ergoterapi for børn og unge



### BAGGRUND FOR MUSICURE OG DEN GENNEMFØRTE FORSKNING MED PUDEN

MusiCure af komponist Niels Eje er specielt komponeret musik, skabt med særlig henblik på at virke afstressende, beroligende og positivt oplevelsesskabende.

Karakteristisk for den originale MusiCure musik er, at der er tale om 'universelle' og 'genre-løse' livsbekræftende oplevelsesrejser i musik, som henvender sig til alle uanset musiksmag, og Niels Eje benytter altid benytter klassiske instrumenter som solister, ofte sammen med originale lyde fra naturen. Mere end 20 års udvikling og resultater fra klinisk forskning udgør fundamentet for skabelsen af MusiCure, og musikken anvendes i dag til en lang række forskellige patientgrupper, både i Danmark og Internationalt.

Skabelsen af MusiCure startede i 1998 med stor medicinsk faglig støtte af professor, overlæge Lars Heslet fra Rigshospitalet, med økonomisk støtte fra Egmont Fonden, og udført af komponist Niels Eje og producer Inge Mulvad Eje.

