

---

# DANSK PSYKIATRISK SELSKABS ÅRSMØDE



HOTEL LEGOLAND, BILLUND  
10.-12. MARTS 2022

PROGRAM & ABSTRACTS

2022

# INDHOLDSFORTEGNELSE

1. PROGRAM FOR DPS' ÅRSMØDE, 10.-12. MARTS 2022, HOTEL LEGOLAND, BILLUND .....	4
Torsdag d. 10. marts .....	7
Guest speaker: Professor Richard IG Holt, University of Southampton .....	7
2. PONTOPPIDAN-KONKURRENCE .....	8
3. SYMPOSIER .....	14
1: Kreativitet og psykisk lidelse ved Peter Handest .....	14
2: "Opgaven er psykoterapi" ved Søren J. Mikkelsen.....	15
3: Patient Videobiblioteket – 3 videoer og OBJ PSYK test ved Esben Blaabjerg Schäffer, Signe Düring og Sidse Arnfred .....	16
Fredag d. 11. marts 2022.....	17
4: Psykiatrisk forskning i Grønland – Symposium 1 - ved Francisco Alberdi .....	17
5: Psykiatriske diagnoser og stress. Kan stress måles, og er der association mellem symptomatologi og stress? ved Dorte Nordholm .....	18
6: Behandling af borderline personlighedsforstyrrelse nu og i fremtiden ved Erik Simonsen ..	19
7: Psykiatriuddannelse i Øst og Vest – Hvor er uddannelsen i psykiatri på vej hen? ved Cecilie Fog-Petersen.....	20
8: Psykiatrisk forskning i Grønland – Symposium 2 - ved Francisco Alberdi .....	21
9: Digital innovation kan give nye perspektiver i psykiatrien ved Christian S. Legind.....	22
10: Psykoterapipakkerne og Patient Rapporterede Outcomes – PRO ved Sidse Arnfred .....	23
11: Beroligende medicin: Anvendelse af benzodiazepiner kontra antipsykotika: Hvordan gør vi det bedst, regulering eller lægekunst? ved Andreas Hoff .....	24
Lørdag d. 12. marts 2022.....	25
PRISUDELING .....	25
Forskning af medicinstuderende.....	25
Danske Regioner.....	25
PLENARY TALK.....	25
Professor René Ernst Nielsen: Der findes et liv før døden – morbiditet og mortalitet hos patienter med svære psykiske tilstande .....	25
4. ABSTRACTS TIL POSTERSESSIONEN .....	26

# 1. Program for DPS' årsmøde, 10.-12. marts 2022, Hotel Legoland, Billund

Torsdag den 10. marts 2022			
11.00 - 12.00	Ankomst/registrering		
12.00 - 13.00	Frokost		
13.00 - 13.05	Velkomst v. formand Gitte Ahle		
13.15 - 14.15	Untangling the interplay of physical health in people with mental illness Professor Richard IG Holt*		
14.15 - 14.45	Kaffe		
14.45 - 16.15	Pontoppidan foredrag udvalgt af bestyrelsen		
16.15 – 16.45	Pause		
16.45 - 17.45	Symposier:  Symposium 1: Kreativitet og psykisk lidelse  Peter Handest	Symposium 2: "Opgaven er psykoterapi"  Søren J. Mikkelsen	Symposium 3: Patient Videobiblioteket – Test dine OBJ. PSYK. Færdigheder!  Esben Schäffer
17.45 – 19.30	Postervandring v. Forskningsudvalget m. vin og snacks		
19.30 -	Middag		

## Fredag den 11. marts 2022

09.00 - 10.00	Symposier:			
	Symposium 4: Psykiatrisk forskning i Grønland Symposium 1 Francisco Alberdi	Symposium 5: Psykiatriske diagnoser og stress Dorte Nordholm	Symposium 6: Borderline personlighedsforstyrrelser Erik Simonsen	Symposium 7: Hvor er uddannelse i psykiatrien på vej hen Cecilie Fog-Petersen
10.00 – 10.10	Pause			
10.10 – 11.10	Symposier – fortsat:			
	Symposium 8: Psykiatrisk forskning i Grønland Symposium 2 Francisco Alberdi	Symposium 9: Digital innovation kan give nye perspektiver i psykiatrien Christian S. Legind	Symposium 10: Psykoterapi-pakkerne og Patient Rapporterede Outcomes Sidse Arnfred	Symposium 11: Beroligende medicin: Anvendelse af benzodiazepiner kontra antipsykotika Andreas Hoff
11.10 – 11.40	Kaffe			
11.40 – 12.40	De lange linjer Æresmedlem 2020, professor emeritus Ralf Hemmingsen			
12.40 – 14.00	Frokost			
14.00 – 15.30	Præsentation af årets videnskabelige afhandlinger v. Forskningsudvalget			
15.30 – 16.00	Kaffe			
16.00 – 19.00	Generalforsamling			
19.00 -	Festmiddag			

## Lørdag den 12. marts 2022

09.30 – 09.40	<b>Prisuddeling</b> Forskning af medicinstuderende <i>Danske Regioner</i>
09.40 - 12.00	<b>PLENARY TALK:</b> Der findes et liv før døden – morbiditet og mortalitet hos patienter med svære psykiske tilstanden Professor René Ernest Nielsen**  Dertil repræsentation fra de fem regioner.  <b>Paneldebat:</b> Hvad gør vi for at forbedre vores patienters fysiske sundhed? Moderator: Journalist Sybille Hildebrandt  <b>Panel:</b> Lægefaglig direktør Phuong le Reisinia – Region Midt Lægefaglig direktør Tina Gram Larsen – Region Nord Lægelige vicedirektør Ida Hageman – Region Hovedstaden Ledende overlæge Birgitte Welcher – Region Sjælland
12.00	<b>Frokost</b>
	 *Professor Richard IG Holt er en af verdens førende eksperter inden for diabetes og psykisk sygdom. Han er professor i diabetes og endokrinologi, Human Development and Health, Faculty of Medicine, University of Southampton. Richard er tilknyttet Psykiatrien Vest og Steno Diabetes Center Sjælland som gæsteprofessor i 2021-22, hvor han skal være med til at udvikle diabetesbehandlingen for borgere med samtidig diabetes og psykisk sygdom i Region Sjælland.
	 **Professor René Ernst Nielsen tiltrådte 1. august 2020 et klinisk professorat i psykiatri ved Klinisk Institut, Aalborg Universitet. Samtidig er han overlæge ved Enhed for Bipolar Lidelse ved Psykiatrien – Aalborg Universitetshospital. René Ernst Nielsen forsøker i hvordan vi kan mindske overdødeligheden i relation til hjerte-kar-sygdomme og generel fysisk sygdom hos patienter med psykiatriske tilstande.

---

Torsdag d. 10. marts 2022

**Guest speaker: Professor Richard IG Holt, University of Southampton  
Untangling the interplay of physical health in people with mental illness**

The physical healthcare of people with mental illness is an essential and integral component of their holistic care, not least because a range of physical illnesses occur more frequently in those with mental illness causing significant morbidity and premature mortality. The presence of physical co-morbidity adversely affects mental well-being while the psychiatric illness worsens the outcomes of many physical illnesses leading to increased mortality. This translates into a reduced life expectancy of 10–20 years. Physical illness accounts for around 75% of all deaths of people with mental illness and as psychiatric treatments have improved, the death rates from "unnatural" causes (principally accidents and suicide) have fallen while conversely the relative risk of dying from respiratory and cardiovascular causes have risen.

The health inequalities experienced by people with mental illness appear to have widened over the last 30 years. Whereas longevity has gradually improved in the general population, these benefits have not been experienced by people with schizophrenia and if deaths from suicide or trauma are discounted, life expectancy has, if anything, declined.

These startling facts demand urgent action to enhance the physical health care to reduce the burden health inequality faced by those with mental illness. An understanding of the scale of the problem, of the underlying aetiology and of the management strategies is important for all professionals caring for people with mental illness. This lecture will not be exhaustive but will cover the major physical illnesses experienced by those with mental illness, together with the responsibilities of healthcare professionals in screening and treatment.

## 2. Pontoppidan-konkurrence

### Risk factors associated with mortality among individuals with type 2 diabetes and depression across two cohorts

Christopher Rohde, Jens Steen Nielsen, (Henning Beck-Nielsen), Henrik Toft Sørensen, Jakob Schöllhammer Knudsen, Reimar Wernich Thomsen, Søren Dinesen Østergaard

<sup>1</sup>Affiliation: Department of Affective Disorders Aarhus University Hospital – Psychiatry, 8200 Aarhus N, Denmark. E-mail: CHRROH@rm.dk, Telephone: +45 28260990

**BACKGROUND:** Depression has been linked to excess mortality in individuals with type 2 diabetes (T2D), but it remains unclear what drives this association. In this study we examined if an observed association between preexisting depression and excess mortality in T2D depends on unhealthy lifestyle and medical comorbidity.

**METHODS:** We followed a clinical cohort of prospectively enrolled T2D patients (n=8,175), and a real-world register-based cohort of Danish adults with first HbA1c-defined T2D (n=87,500). Redemption of a prescription for an antidepressant drug prior to the onset of T2D was used as proxy for preexisting depression. In both cohorts, we first estimated the association between depression and five-year mortality following the onset of T2D, using a Cox proportional-hazards model, yielding sex- and age-adjusted mortality rate ratios (MRRs). In both cohorts, we subsequently examined how further adjustment for preexisting unhealthy lifestyle and medical comorbidity affected the MRRs from depression.

**RESULTS:** Preexisting depression was associated with a substantially increased all-cause mortality in both the clinical T2D cohort (sex- and age-adjusted MRR: 1.46; 95%CI: 1.12-1.90) and the register-based T2D cohort (sex- and age-adjusted MRR: 1.51; 95%CI: 1.45-1.57). The excess mortality associated with depression almost dissipated when the analyses were adjusted for unhealthy lifestyle and medical comorbidity: clinical T2D cohort: MRR: 1.07; 95%CI: 0.74-1.55; register-based T2D cohort: MRR: MRR: 1.14, 95%CI: 1.09-1.19.

**CONCLUSION:** The results of this study suggest that virtually all the excess mortality associated with preexisting depression in T2D is attributed to unhealthy lifestyle and medical comorbidity accompanying depression.

---

## Weekly medical rounds in psychiatric wards improves identification and treatment of physical illness in a cohort of patients with severe mental illness

Julie Mackenhauer, Jenna Ibsen, Tahmeenah Rahi, Inger Brødsgaard, Søren Frey Kristensen, Søren Paaske Johnsen, Lene Birket-Smith, Jan Mainz

Aalborg Universitetshospital Psykiatrien og Dansk Center for Klinisk Sundhedstjenesteforskning (DACS), Aalborg Universitet. E-mail: j.mackenhauer@rn.dk

**Aim:** The aim of this project was to investigate the effect of the quality improvement initiative of weekly medical wards rounds in psychiatric wards on identification and treatment of physical illness.

**Method:** This is a cohort study describing outcomes of weekly medical ward rounds at Aalborg University Hospital Psychiatry in a subgroup of patients admitted with schizophrenia or bipolar disease from November 2016 through June 2020.

The intervention was co-designed with patients and implemented step-wise in our organization using the PDSA (Plan-Do-Study-Act)-methodology from August 2017.

Outcomes were defined as utility of selected clinical services (chest x-ray, echocardiography, urgent cancer investigations, laboratory tests) and selected clinical interventions (referral to non-psychiatric outpatient clinics, transfer to non-psychiatric wards, new prescriptions of selected drugs).

We assessed the effect using Statistical Process Control(SPC). We assessed each run chart for common-cause or special-cause variation.

**Results:** During the study period, 917 unique patients were admitted with a main diagnosis of schizophrenia or bipolar disease. Of these, 193 patients were exposed to the quality improvement initiative.

The medical team consulted each exposed patient one time IQR[1;2], however it ranged from one to twenty-four times. Among exposed patients, immediate transfer to a non-psychiatric ward was made for 9 patients(5%). New prescriptions of one or more of the selected drugs were given to 43 patients(22%). The medical team performed chest x-rays on 33 patients(17%), echocardiography on 15 patients(8%), and referred 6 patients(3%) for cancer investigations. 46 patient(24%) were subsequently seen in a non-psychiatric out-patient clinic.

When considering SPC-charts for all patients admitted with schizophrenia or bipolar disease, use of chest x-rays, echocardiographies, cancer referrals and prescriptions for diabetes and hypertension medication increased.

In contrast, transfers to non-psychiatric wards, visits to non-psychiatric out-patient clinics and prescription for lung disease, cholesterol and antibiotics did not show presence of special cause variation.

**Conclusion:** Identifying and treating physical co-morbidities during admission on a psychiatric ward may be a valuable method to improve physical health in patients with mental illness.

---

## Prevention of trauma-related mental health problems among Arabic refugees in Denmark: A controlled and qualitative study of the MindSpring group programme

Simon Ruben Husby

**Background:** Psychiatric disorders are common among refugees and often impact their well-being significantly. MindSpring is a group intervention for newly arrived refugees with the purpose of strengthening the participants' ability to cope with psychosocial problems, thereby preventing that pre-migration trauma and post-migratory stressors evolve into psychiatric disorders. It consists of nine two-hour sessions, and groups are facilitated by a trainer with refugee background.

Although psychosocial interventions for newly arrived refugees are implemented in many countries, very few studies evaluate such programmes.

A pilot mixed method study with 92 participants, but no control group, showed high satisfaction with the MindSpring intervention alongside a significant pre-to-post intervention improvement on 22% measured on the WHO-5 life quality rating scale.

**Aims:** We aimed to investigate the effects of early interventions in order improve the mental health of trauma-affected refugees in the future.

The objective of the project was to evaluate the outcomes of MindSpring among Arabic-speaking refugees who had obtained their visa within the past 5 years. We hypothesized that refugees who had participated in the MindSpring intervention showed significantly greater improvement in psychiatric symptoms, life quality compared to matched controls.

**Methods:** The study was a mixed method study including a quantitative questionnaire survey and qualitative interviews through purposeful sampling. We chose to use a matched control group design. 159 participants and 88 controls completed WHO-5, RHS-13 and a MindSpring-specific questionnaire before and after the intervention. Based on calculations of the WHO-5 wellbeing score, 12 participants were invited to take part in individual interviews.

**Results:** Both the quantitative and qualitative data are currently being analysed and will be presented at the conference.

**Discussion:** The results will be discussed and compared to similar studies at the presentation. Future implications will also be highlighted.

## The role of sex hormone levels and serotonin brain signalling in men with Major Depressive Disorder

Malene Ravn-Eriksson<sup>1,2,3</sup>, Kristian Høj Reveles Jensen<sup>1,2,3</sup>, Søren Vinther Larsen<sup>1,3</sup>, Kristin Köhler-Forsberg<sup>1,2</sup>, Martin Balslev Jørgensen<sup>1,2,3</sup>, Vibe G. Frokjaer<sup>1,2,3</sup>

<sup>1</sup>Neurobiology Research Unit, Rigshospitalet, Copenhagen, Denmark

<sup>2</sup>Psychiatric Centre Copenhagen, Copenhagen, Denmark

<sup>3</sup>Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

**Background:** The serotonin (5-HT) system and sex hormones may contribute to the etiology of psychiatric disorders. It is not possible to measure 5-HT directly, but findings by our group suggest that brain imaging of the 5-HT4 receptor (5-HTR) provides an index of 5-HT[1]. We have previously seen a negative association between testosterone and brain availability of 5HT4R, particularly in hippocampus, in healthy men[2].

We investigate for the first time if sex-hormone levels and 5HT4R-binding is associated in men with depression.

**Methods:** We investigated associations between 5-HT4R in key brain regions, depression severity, and sex hormones in men with MDD[3] (n=27) relative to healthy men (HC, n=53) from The Center for integrated Molecular Brain Imaging database[4](mean 26 years, range 18-49). 5-HT4R-binding was measured by Positron Emission Tomography, depression severity by HAMD-17, and testosterone and estradiol in plasma.

We examined group differences in sex hormones with an unpaired t-test. We used linear regression modeling to evaluate associations between sex hormones and 5-HT4R-binding in both groups, and in the MDD group only also with depression.

**Results:** We observed lower estradiol levels in men with MDD (mean 0.097 nmol/L) compared to HC (mean 0.122 nmol/L,  $p=0.001$ ), and no difference in testosterone. In men with MDD we observed a positive association between HAMD-17 and testosterone ( $p=0.016$ ) but not estradiol. We found positive associations between 5-HT4R-binding in putamen and estradiol in HC ( $p=0.037$ ) and MDD ( $p=0.067$ ). In contrast, we saw a borderline significant negative association in putamen for testosterone only in HC ( $p=0.05$ ).

**Conclusion:** Sex hormones may influence depressive symptoms and serotonergic brain architecture. Our data support that men with MDD had lower estradiol levels than healthy men. Intriguingly, estradiol and possibly also testosterone appear to be associated with 5HT4R brain binding. Our findings highlight potential hormonal contributions in MDD including estradiol also in men.

1. Haahr ME, Fisher PM, Jensen CG, Frokjaer VG, Mahon BM, Madsen K, et al. Central 5-HT4 receptor binding as biomarker of serotonergic tonus in humans: a [11C]SB207145 PET study. *Mol Psychiatr*. 2014;19(4):427–32.
2. Perfalk E, Cunha-Bang S da, Holst KK, Keller S, Svarer C, Knudsen GM, et al. Testosterone levels in healthy men correlate negatively with serotonin 4 receptor binding. *Psychoneuroendocrinol*. 2017;81:22–8.
3. Köhler-Forsberg K, Jorgensen A, Dam VH, Stenbæk DS, Fisher PM, Ip C-T, et al. Predicting Treatment Outcome in Major Depressive Disorder Using Serotonin 4 Receptor PET Brain Imaging, Functional MRI, Cognitive-, EEG-Based, and Peripheral Biomarkers: A NeuroPharm Open Label Clinical Trial Protocol. *Frontiers Psychiatry*. 2020;11:641.
4. Knudsen GM, Jensen PS, Erritzoe D, Baaré WFC, Ettrup A, Fisher PM, et al. The Center for Integrated Molecular Brain Imaging (Cimbi) database. *Neuroimage*. 2016;124(Pt B):1213–9.

---

## Integrating mental health care and work rehabilitation during sick-leave with anxiety or depression

Presenter: Andreas Hoff, MD, ph.d. student, andreas.hoff@regionh.dk

Andreas Hoff<sup>1</sup>, Jonas Fisker<sup>1</sup>, Rie Mandrup Poulsen<sup>1</sup>, Carsten Hjorthøj<sup>1,2</sup>, Merete Nordentoft<sup>1</sup>, Anders Bo Bojesen<sup>1</sup> and Lene Falgaard Eploy<sup>1</sup>

<sup>1</sup>Copenhagen Research Center for Mental Health - CORE, Mental Health Services Capital Region of Denmark, University of Copenhagen, Gentofte Hospitalsvej 1, Opgang 15-4, DK-2900

<sup>2</sup>University of Copenhagen, Department of Public Health, Section of Epidemiology

**Background:** Anxiety and depression are very common causes of long-term sick leave, associated with much individual suffering and societal financial burden. Different kind interventions are needed, but lack of coordination of these, seem to entail confusion among sick employees.

**Aim:** of this study was to trial the IBBIS Integrated Intervention compared to non-integrated interventions.

**Methods:** 3-armed RCT. 631 participants on sick leave due to depression or anxiety were randomized to one of three groups:

- 1) TAU: treatment as usual, being standard health care in general practice simultaneously but not integrated with VR in job centers;
- 2) MHC consisting of systematically provided cognitive behavioral therapy, simultaneously but not integrated with VR in jobcentres;
- 3) INT: the IBBIS intervention consisting of integrated IBBIS MHC and IBBIS VR, provided integrated teams.

**Outcomes:** Primary outcome: time to return-to-work (RTW), measured at 12 months. Secondly, at 6 months: RTW rates and proportion, levels of depression, anxiety, stress and functioning.

**Results:** No RTW rate differences, but INT yielded a higher proportion in work compared with MHC (56.2% vs. 43.7%) and TAU (56.2% vs. 45%) at 12 months. We found no major differences on symptoms, but INT and MHC showed lower level of stress at 12 months.

**Discussion:** Although INT didn't hasten RTW, it implied higher proportion in work after one year, and gave minor health benefits. While the study was rigorously conducted, results might be limited by implementation issues.

---

## Clinical validation of the Aarhus Side effect Assessment Questionnaire (ASAQ)

Pernille Kølbæk<sup>1,2,3</sup>, Mette Viller Thorgaard<sup>2,3</sup>, Amalie Schnegelsberg Grooss<sup>3</sup>, Thusitha Selvanathan<sup>3</sup>, Sofie Fly Larsen<sup>3</sup>, Maria Speed<sup>2,3</sup>, David Dines<sup>1</sup>, Søren Dinesen Østergaard<sup>1,2,3</sup>

<sup>1</sup>Psychosis Research Unit, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

<sup>2</sup>Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

<sup>3</sup>Department of Affective Disorders, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

**Background:** Psychotropic medications are essential in the treatment of mental illness. Unfortunately, these medications are associated with side effects that may reduce adherence to treatment and quality of life. Therefore, systematic screening for side effects is fundamental to optimize treatment with psychotropic medications. Self-report of side effects is a practical alternative to time-consuming clinical assessments. We developed the Aarhus Side effect Assessment Questionnaire (ASAQ) in an attempt to strike the balance between extensive coverage of side effects and reasonable application time.

**Aims:** To validate the ASAQ using the clinician-rated Udvælg for Kliniske Undersøgelser (UKU) side effect scale as gold standard reference.

**Methods:** A total of 122 inpatients and outpatients – mainly with psychotic (39%) and affective disorders (43%) – receiving treatment with psychotropic medication completed the ASAQ and the WHO-Five Well-Being Index (WHO-5), and were subsequently rated on the UKU by trained raters.

**Results:** Using the UKU as the gold standard reference, the ASAQ demonstrated sensitivity values >75% for 77% of its 30 items (ranging from 37% for cutaneous disturbances to 98% for increased sweating) and specificity values >75% for 47% of its 30 items (ranging from 28% for reduced sleep to 98% for micturition disturbances). While 17% of the participants considered discontinuing their medication, 24% had recently refrained from taking their medication as prescribed. A negative correlation was found between the ASAQ and the WHO-5 and total scores (Pearson's correlation coefficient: -0.44).

**Conclusions:** The self-reported ASAQ seems to be a sensitive tool for detecting side effects of psychotropic medications.

### 3. Symposier

#### 1: Kreativitet og psykisk lidelse ved Peter Handest

##### Beskrivelse

Diskussionen om sammenhængen mellem kreativitet og psykiske sygdom går tilbage til Antikken, som fx af Aristoteles (340 f.Kr.) med "the mad genius".

Der er en stigende interesse i psykiatrien for de kreative og kunstneriske kompetencer hos mennesker med psykiske lidelser har. En lang række bredt anerkendte kunstnere har haft psykiske lidelser. Det kunne tale for en sammenhæng mellem psykisk lidelse og kreativitet. Er psykisk lidelse en inspirationskilde eller en forhindring, der skal omgås? Er psykisk lidelse en fordel, når man skal etablere sig som kunstner? Er vendingen, "man skal være lidt speciel for at være kunstner", en devaluerende fordom eller en positiv anerkendelse?

Symposiet vil forsøge at afdække disse spørgsmål ud fra to personlige fortællinger. Fortællinger om indre dæmoner, op- og nedture, inspirationskilder, den psykiske lidelses konkrete udtryk i deres kunst, det positive og negative møde med diagnoser og det psykiatriske behandlingssystem, og mødet med egne og samfundets fordomme og stigmatisering.

Fortællingerne vil være udgangspunkt for spørgsmål og dialog med tilhørerne om kreativitet og psykisk lidelse.

##### Foredragsholdere

Peter Handest, formand for Interessegruppe for fænomenologisk psykopatologi

Marie Grahtø, filminstruktør og manuskriptforfatter

Carsten Dahl, maler og pianist

##### Symposieansvarlig

Peter Handest, e-mail: handest@dadlnet.dk

##### Abstracts

###### Kunsten at leve som skizofren v/Marie Grahtø

Jeg er filminstruktør, manuskriptforfatter, har en BA i Film- og medievidenskab, en Kandidat i Visuel Kultur, samt en 3-årig filminstruktøruddannelse fra Super16 under Nordisk Film - og leder af paranoid skizofreni. I min første spillefilm der havde verdenspremiere på Venedig Biennalen, forsøgte jeg at tage publikum med på en rejse, hvor alt er usikkert og uforudsigeligt. Hvor man ikke altid ved hvad der foregår. Jeg ønskede, at filmen både skulle drage og afstøde sit publikum. Jeg ønskede at tilbyde publikum en oplevelse, hvor de blev tvunget til at føle, hvordan en psykose opleves. Hvordan det opleves at være draget af døden, som var den tyngdekraften. Hvordan det føles at blive besat af djævlen og spiddet med tusind knive indefra. Jeg har været indlagt på psykiatrisk afdeling det meste af de sidste to år, undergået exorcisme hos den katolske kirke, .... jeg har gjort alt. Men skizofreni er et indre jordskælv, der aldrig stopper. Man skal ikke romantisere sammenhængen mellem psykisk sygdom og kreativitet.

###### Kunsten og fællesskabet som meditativ heling og mestringsstrategi v/Carsten Dahl

Jeg vil med udgangspunkt i eget liv belyse og pege på behovet og muligheden for at skabe rum for patienten/pårørende igennem udfoldelse og udtryk. Alt for mange indtryk giver alt for mange aftryk som bliver til ophobet overtryk. Der skal helst findes et udtryk ellers kan det jo ofte forvandle sig til nedtryk eller aggression.

Det kan være i fællesskaber eller i et rum af soliloquy.

## 2: "Opgaven er psykoterapi" ved Søren J. Mikkelsen

Alle psykiatere skal have grundlæggende træning i psykoterapi – dels for at kunne anvende psykoterapeutiske interventioner, når det er indiceret, dels for at kunne inddrage psykoterapeutisk forståelse i diagnostik og behandling i den daglige kliniske praksis. Psykoterapi er en specialiseret behandling af psykiatriske lidelser, som kræver en særlig uddannelse og træning. For at blive godkendt specialist eller supervisor skal speciallægen i psykiatri bl.a. udarbejde et større skriftligt arbejde, der viser at man behersker relevant teori.

Psykoterapiudvalget under DPS er ansvarlig for rammerne for den psykoterapeutiske uddannelse, udarbejdelse af betænkning samt godkendelse af specialister og supervisorer.

Udvalget beskæftiger sig desuden med at udbrede kendskab til forskellige terapiformer og deres anvendelse i behandlingen af patienter.

Som et led i dette, vil vi derfor gerne invitere til et symposium, hvor vi kombinerer disse punkter.

Oplægsholderne er alle indenfor de sidste 1 – 2 år blevet godkendte som specialister eller supervisor i psykoterapi, og vil fremlægge emnerne for deres obligatoriske afsluttende opgave på uddannelserne.

1. Overlægerne Barbara Hjalsted og Barbara Felix, Region Hovedstadens Psykiatri.  
Specialister i Kognitiv Adfærdsterapi:  
"Brug af case-formuleringer i KAT-pakkeforløb i Region Hovedstadens Psykiatri, ledelses- og behandlersynspunkter. "
2. Speciallæge i psykiatri Eszter Kulhay, Region Nordjyllands Psykiatri.  
Specialist i Psykodynamisk terapi: "Kan man facilitere gruppens mentaliseringsevne under MBT sessioner ved hjælp af ekspliktering (verbalisering) af automatiserede af-læsningsmekanismer?".
3. Overlæge Søren Mikkelsen, Psykiatrien Region Midt.  
Specialist og supervisor i Kognitiv Adfærdsterapi:  
"Katastrofe supervision" .

Der vil efterfølgende være mulighed for spørgsmål og diskussion.

### **Ansvarlig for symposiet:**

Overlæge (og medlem af Psykoterapiudvalget under DPS)

Søren Mikkelsen

Regionspsykiatrien Randers, Psykiatrisk Klinik Rønde

Hovedgaden 61-63

8410 Rønde

arbejdsmobil: 2369 9082

mail: somikk@rm.dk

---

### 3: Patient Videobiblioteket – 3 videoer og OBJ PSYK test ved Esben Blaabjerg Schäfer, Signe Düring og Sidse Arnfred

Test dig selv – i Objektiv Psykisk. Vi har tre patientvideoer med og til hver en multiple choice test.

Videoerne varer 6-10 minutter og man får 5 minutter til at svare, digitalt, på testen. Efter de tre video-tests, ser vi på scores og diskuterer hvilke OBJ PSYK domæner der er mest variabelt besvaret, og hvor vanskelighederne er. Test resultaterne indgår i vores forskning (selvfølgelig kun dem, der samtykker til det) så jo flere der er med, jo bedre forskning får vi ud af det!

#### **Baggrund**

I Psykiatrien Vest i Region Sjælland har vi opbygget et video-vignet bibliotek med rigtige patienter med det formål at træne objektiv psykisk vurdering, især til medicinstuderende. Der er 22 træningsvideoer og 3 test-videoer. De bliver hyppigt brug i klinikken til samrating til stor gavn og med godt engagement.

Patienterne i videoerne er fundet blandt de indlagte i Psykiatrien vest, Region Sjælland. De spænder over et vidt udsnit af diagnosegrupper og psykopatologi. Aldersspændet er 20 til 88 år med både mænd og kvinder. Videoerne er med samme interviewer.

Til facilit for de studerende er der blevet udfærdiget objektivt psykisk vurderinger af tre erfarne speciallæger, og enigheden blandt dem var rimelig.

Kontaktoplysninger:

Esben Blaabjerg Schäfer.

Telefon: +45 20877063

Mail: esbs@regionsjaelland.dk

---

Fredag d. 11. marts 2022

## 4: Psykiatrisk forskning i Grønland – Symposium 1 - ved Francisco Alberdi

Formålet med begge symposier er at give et samlet billede af den psykiatriske forskning i Grønland i de seneste år og at pege på mulige veje at gå i den nære fremtid.

### Symposium 1

Ordstyrer Inge Lynge

1. [Alberdi, F., Rasmussen, J. Psykiatriske lidelser i Grønland. Ugeskr læger, 2019; 181:V06190345. Ved Johannes Rasmussen](#)

Det er velkendt at Grønland har gennemgået en socialt, politisk og sundhedsmæssigt radikal transformation i de seneste 50 år. Artiklens røde tråd er forholdet mellem risikofaktorer, vulnerabilitet og befolkningens modstandskraft. Der gives en summarisk beskrivelse af befolkningsundersøgelser af psykisk sundhed i Grønland i perioden og af sammenfaldet mellem sociale forhold, sundhedstilstand og psykisk sundhed. Efter en kort gennemgang af psykiatrisk komorbiditet ved den primære sundhedstjeneste ser man på forskning af psykiatriske sygdomme behandlet i sygehusregi, først og fremmest skizofreni og depression. Endelig vil man gennemgå den foreliggende forskning om en at Grønlands største psykiatriske udfordringer, nemlig den ekstrem høje selvmordsrate, specielt blandt unge mænd.

2. [Jakobsen, AS., Pedersen, ML. Schizophrenia in Greenland. Dan Med J. 2021, Jan 7; 68\(2\): A03200159.](#)

I denne undersøgelse fokuserer man på skizofreniens aktuelle prævalens i landet som helhed og i hovedstaden Nuuk. Den totale prævalens og kønsratioen i landet og i Nuuk sammenstilles med forholdene i Danmark og globalt. Patienternes svære socioøkonomiske og psykologiske udviklingsforhold og aktuelle status bliver nøje beskrevet, og det samme gælder for patienternes komorbiditet med cannabis og alkohol.

Undersøgelsen er den første undersøgelse i Grønland, hvor man har foretaget en grundig gennemgang af foreliggende data om patienternes somatiske risikofaktorer med særlig fokus på metaboliske og cardiovaskulære risikofaktorer. Udover at finde en generel forøgelse af risikofaktorer, konstaterer man betydelige mangler i den kliniske monitering af disse forhold.

3. [Alberdi, F., Jakobsen, AS., Rasmussen, J. Antipsychotic drug use in Greenland and Denmark.Longitudinal and cross-sectional data. Nord J Psychiatry. 2021, Juli 26; 1-6. Ved Francisco Alberdi](#)

Med baggrund i det betydelige mindre forbrug af alt medicin i Grønland i forhold til Danmark undtaget antipsykotika og antibiotika, fokuserer vi i denne undersøgelse på forbrug af antipsykotisk medicin i Grønland og Danmark i perioden 2014-2019. Vi lægger særlig vægt på forskellen i det totale forbrug samt på forskellen i den daglige gen-nemsnitdosis af antipsykotisk medicin blandt skizofrene patienter i begge lande. Endelig ser vi på spørgsmålet om polyfarmaci og variationerne i perioden af de mest anvendte antipsykotiske midler.

---

## 5: Psykiatriske diagnoser og stress. Kan stress måles, og er der association mellem symptomatologi og stress? ved Dorte Nordholm

### Kort beskrivelse af symposiet:

I den kliniske hverdag nævnes det hyppigt, at en patient har været utsat for stressende begivenheder, og at det derfor er forståeligt, at pågældende har fået det dårligere og f.eks. må indlægges. Det er også velbeskrevet i litteraturen og allerede i 1977 udgav Zubin og Spring en model for udvikling af psykose: Stress sårbarhedsmodellen. Denne model beskrev, hvorledes man mente, at patienter med en vis disposition kunne udvikle psykose, hvis de blev utsat for stressende begivenheder.

Man ved fra forskningen, at personer med psykisk lidelse har højere score på stress-skalaer, hvor de subjektivt skal vurdere deres stress-niveau. Dette forekommer på tværs af diagnoserne. Kan disse stress-symptomer vurderes objektivt eller måles paraklinisk? Og har de objektive mål betydning for sværhedsgraden af lidelserne og deres forløb?

Det sympatiske nervesystem og hypothalamus-pituitary-adrenal (HPA)-aksen er de to store biologiske systemer involveret i stress. Når man oplever stressorer, stiger hjertefrekvensen og blodtrykket, HPA-aksen aktiveres, så der udskilles cortisol. Man kan kvantificere stress-response ved at måle: cortisol, oxidativ stress, hjertefrekvens, søvnregistrering og aktivitetsregistrering (aktivitetsmåler).

I dette symposium beskæftiger vi os med tre diagnostiske grupper: Patienter i risiko for at udvikle psykose, patienter med posttraumatisk belastningsreaktion og patienter med bipolar affektiv sindslidelse. Vi introducerer forskellige metoder til at måle biomarkører for stress: Søvnregistrering, aktivitetsmåling, cortisol, heart-rate variability og oxidativ stress. Stressniveauet evalueres ligeledes på stress-skaler og sammenholdes med sværhedsgraden af psykopatologien.

### Ansvarlig for symposium:

Dorte Nordholm, speciallæge i psykiatri, klinisk lektor, ph.d.

### Foredragsholdere:

Hinuga Sandahl, læge og ph.d., Psykiatrisk Center Ballerup.

Dorte Nordholm, speciallæge i psykiatri, klinisk lektor, ph.d., Psykiatrisk Center København (Gentofte).

Ulla Benedicte Knorr, klinikchef, klinisk lektor, ph.d., Psykiatrisk Center København (Rigshospitalet).

---

## 6: Behandling af borderline personlighedsforstyrrelse nu og i fremtiden ved Erik Simonsen

### **Indhold:**

Patienter med borderline personlighedsforstyrrelse er med deres selvskadende og suicidale adfærd, impulsivitet, affektlabilitet og psykosenære symptomer hyppigt forekommende i den kliniske hverdag med store behandlingsmæssige udfordringer og behandlingssvigt til følge.

Vi har i Region Sjællands psykiatri både haft fokus på tidlig opsporing og evidensbaseret behandling til denne patientgruppe. I symposiet vil vi præsentere resultaterne af et randomiseret forsøg af mentaliseringsbaseret gruppeterapi (n=112) til unge med borderline personlighedsforstyrrelse, herunder redegøre for prediktorer for outcome og drop-out.. Dernæst vil vi præsentere resultater fra et nyligt afsluttet Cochrane review over de specialiserede psykoterapeutiske behandlingsformer til behandling af borderline og fra et tilsvarende review om den farmakologiske behandling. Til slut vil vi gennemgå ICD-11's klassifikation af personlighedsforstyrrelser for at diskutere, hvilke konsekvenser den vil få fremover for behandlingen af denne patientgruppe.

### **Foredragsholdere:**

Erik Simonsen, Ole Jakob Storebø, Bo Bach, Mie Jørgensen

### **Ansvarlig:**

Professor Erik Simonsen. Forskningschef Psykiatrien region Sjælland.

Mail: es@regionsjaelland.dk, mobil: 20 10 82 93

Alle foredragsholdere er tilknyttet Center for Personality Disorder Research, Psykiatrien Region Sjælland.

---

## 7: Psykiatriuddannelse i Øst og Vest – Hvor er uddannelsen i psykiatri på vej hen? ved Cecilie Fog-Petersen

### **Indhold:**

I symposiet præsenteres tre meget forskellige måder at gøre uddannelse i psykiatri an på rettet mod forskellige målgrupper.

På Aarhus Universitetshospital har man i længere tid arbejdet med forskellige typer af simulation af psykiatri-scenarier som en del af uddannelsen af læger. I dette symposium præsenterer AUH deres brug af VR simulation, hvor lægen iklædes en VR-brille og ”gennemlever” et akut tilkald på en sengeafsnit. VR simulationen fremhæver kompleksiteten af situationen gennem tre perspektiver; patientens, lægens og sygeplejerskens. Effekten af simulationen undersøges både kvalitativt og kvantitativt.

Fra Region Hovedstaden præsenteres afprøvningen af et tværfagligt kursus målrettet klinisk personale i psykiatrien. Formålet med kurset er at øge kursisters oplevede mestring (self-efficacy antagelser) af at lave risikovurderinger og kriseplaner med selvmordstruede patienter. Kurset er udviklet i to formater, der begge består af obligatorisk e-læring om selvmordsforebyggelse og derefter enten A) et kortere teoretisk oplæg og simulation med en skuespiller eller B) et længere teoretisk oplæg og rollespil med kolleger. Effekten undersøges kvantitativt.

Region Sjælland har i længere tid arbejdet med videoer som en understøttende del af medicinstuderendes klinikophold. Der er nu udviklet et reelt e-læringsmodul der skal understøtte KU’s medicinstuderendes forståelse af lægefagligheden i psykiatrien og hjælpe dem med at forberedelsen til deres eksamen i psykiatri. E-læringsmodulet indeholder bl.a. kommenterede videoer af rigtige patienter, animationsfilm og multiple choice quiz. Relevansen af indholdet i e-læringsmodulet undersøges kvantitativt.

Der afsluttes med en paneldiskussion og spørgsmål fra publikum.

### **Oplægsholdere:**

Astrid Jacobsen Harpøth, H-Læge i Psykiatri, AUH Psykiatri, Neurologisk Afdeling, AUH  
Barbara Hoff Esbjørn, Ph.d., specialist og supervisor i psykoterapi, leder af Campus for Psykiatrisk Simulation Region Hovedstaden  
Esben Blaabjerg Schäfer, i-læge og klinisk assistent/ Cecilie Fog-Petersen, ph.d. cand.mag., Psykiatrien Vest, Region Sjælland

### **Kontaktperson:**

Cecilie Fog-Petersen, mail: Cemfegionsjaelland.dk, tlf.: 50988940

## 8: Psykiatrisk forskning i Grønland – Symposium 2 - ved Francisco Alberdi

Formålet med begge symposier er at give et samlet billede af den psykiatriske forskning i Grønland i de seneste år og at pege på mulige veje at gå i den nære fremtid.

### Symposium 2

Ordstyrer Parnuna Heilmann

Fremlæggelse og diskussion af følgende undersøgelser og projekter.

1. [Mondrup, L. Sprog og tavshed i grønlandsk psykiatri. Bibliotek for Læger, 2020. 212,2:144-165. Ved Lise Mondrup.](#)

Artiklen lægger vægt på grundlæggende forhold i kommunikationen og i læge-patient relationen med betydning for den psykiatriske diagnostik og behandling. Udgangspunktet er mødet mellem to forskellige kulturer med forskellige sprog, menneskesyn og livsværdier. Artiklen beskriver kulturspecifikke opdragelsesforhold i Grønland, blandt andet opfattelsen af autonomi og respekt, tilbageholdenhed, tavshed, isumaminik ("det er lige meget-holdning"), kropssprog og deres rolle i kommunikationen. Der er endvidere særlige sygdomsopfattelser og kulturspecifikke sygdomsbilleder, som indvirker på psykiatриens evige dilemma mellem paternalisme og patientens autonomi. Et dilemma som bliver forstærket under transkulturelle forhold, med forskellige opfattelser af hvor grænsen går mellem dilemmaets to poler.

2. [Jentz, Ch., Heilmann, P., Nathanielsen, N., Upfold, C., Kleist, I., Sørensen, LU. Suicide attempts among Greenlandic forensic psychiatric patients. I review-fase. Ved Inaluk Kleist](#)

Selvmord er som tidligere nævnt en stor udfordring i det grønlandske samfund og i grønlandsk psykiatri. Denne undersøgelse er den første, som sætter fokus på denne problematik i forhold til landets retspsykiatriske patienter. Undersøgelsen er en tvær-snits-, registerundersøgelse af livsprævalens og risikofaktorer af alle grønlandske retspsykiatriske patienter som har forsøgt selvmord. Fundene bliver sammenlignet med tilsvarende tal fra Canadas arktiske population.

3. [Nationalt oplysningsprojekt om psykiatri i Grønland ved Anne Lindhardt og Jonna Jacobsen Pleisner.](#)

Spørgsmålet om psykiske lidelsers karakteristikker, definition og forståelse er et af de emner, som har voldt de største vanskeligheder i forholdet mellem den vestlige psykiatri og andre kulturer med en anden opfattelse af grænserne mellem normalitet og psykopathologi. Stigmatisering og diskrimination af psykisk syge mennesker er i den forbindelse et stort problem på tværs af kultur, som kun kan bekæmpes med dialog, oplysning, og samarbejde i løsning af patienternes problemer. Under denne fremlæggelse vil man beskrive et nyt nationalt oplysningsprojekt om psykiatri i Grønland, dets mål og metode, samt de vanskeligheder der er forbundet med et sådan projekts gennemførelse i et land med særlige geografiske og demografiske karakteristikker som Grønland.

4. [Forskningsgruppe om psykiatri i Grønland ved Jessica Carlsson, Morten Ekstrøm og Parnuna Heilmann.](#)

Psykiatrien i Grønland vil i de kommende år etablere et forskningssamarbejde med Region Hovedstadens Psykiatri. I Kompetencecenter for Transkulturel Psykiatri har man specialiseret sig i integration af klinik og forskning og disse erfaringer tænkes anvendt i Grønlandsk psykiatri med fokus på den kliniknære forskning. Opbygningen af et bredt psykiatrisk forskningsfelt forventes sekundært at kunne tiltrække flere kliniske kræfter til psykiatrien i Grønland.

## 9: Digital innovation kan give nye perspektiver i psykiatrien ved Christian S. Legind

### Beskrivelse

Danmark er et af verdens mest teknologiserede samfund, og har potentialet til at blive en førende nation inden for teknologiske sundhedsløsninger.

Der er inden for psykiatrien nu så mange væsentlige forskningsprojekter der anvender nye digitale teknologier, at det er relevant at give et indblik i aktiviteten på området og de muligheder der kan ligge i deres anvendelse. Vi har valgt at vægte behandling der allerede i nogen grad har fundet anvendelse i klinisk praksis ved at inkludere oplæg om internetbehandling og apps, samt at give et perspektiv på nogle af de teknologier der dertil forventes at præge fremtidens psykiatri ved at inkludere virtual reality (VR) og algoritmer til beslutningsstøtte (kunstig intelligens/machine learning).

Internetbehandling udbydes allerede på nationalt plan til behandling af lettere grader af angst og depression, og der forskes blandt andet i forebyggelse af psykiatriske genindlæggelser. Der er mange tusinde apps der er rettet mod mental sundhed, men kun få af disse er undersøgt i randomiserede kliniske studier. I Danmark har vi forsket i apps til blandt andet affektive lidelser i mere end 15 år, og vil præsentere de væsentligste resultater af dette arbejde. I VR deltager patienterne i virkelighedsnære scenarier der kan fremkalde naturtro emotionelle reaktioner, hvilket åbner op for nye måder at behandle og undersøge psykiatriske patienter på. Big data og algoritmer er den teknologi der allerede præger vores digitale samfund mest, dog uden at have fundet klart indpas i psykiatrien endnu. Der gives indblik i de væsentligste danske studier og potentielle anvendelsesmetoder.

Udvalg for Digital Innovation under Dansk Psykiatrisk Selskab ønsker at fremhæve digitale løsninger i psykiatrien som et område der er i sin spæde barndom og som fremover utvivlsomt vil gøre sit indtog med tiltagende styrke.

### Foredragsholdere:

Internetbehandling: Kim Mathiasen, psykolog, ph.d., Telepsykiatrisk Center, Region Syddanmark

Apps: Maria Faurholt-Jepsen, læge, dr. med., Psykiatrisk Center København

VR: Benjamin Arnfred, Psykolog, ph.d.-stud., Copenhagen Research Centre for Mental Health – CORE, Psykiatrisk Center København

Big Data og Algoritmer: Michael Benros, læge, prof., Copenhagen Research Centre for Mental Health – CORE, Psykiatrisk Center København

### Ansvarlig for symposiet:

Christian Legind, læge, ph.d., Psykiatrisk Center København

Mail: christian.legind@regionh.dk

## 10: Psykoterapipakkerne og Patient Rapporterede Outcomes – PRO ved Sidse Arnfred

### **Indhold:**

Behandlingspakkerne i Psykiatrien dvs hovedsageligt psykoterapi-pakkerne, beskrives ofte som insufficente, og det fremhæves at der ikke er tilstrækkelig kvalitetssikring af behandlingen. Her præsenteres tre korte oplæg om hvordan man kan arbejde med udvikling og monitorering af psykoterapi behandlingen.

**Tracking til at identificere patienter med manglende udbytte af gruppeterapi v/ Jasmin Gryesten**  
Anvendelsen af tracking (outcome monitorering) kan være et hjælpsomt redskab til at gøre terapeuter opmærksomme på, at patienter har brug for anden eller yderligere indsats under et behandlingsforløb. Der er dog flere patienter, som stadig ikke får et bedre terapiudbytte selvom terapeuterne anvender tracking i behandlingen. Forskningsresultater tyder derudover på, at det kan være vanskeligt at inddrage tracking-feedback i gruppeterapi. I projektet *Development of an Intervention for Persistent Not On Track (DIPNOT)* følger vi patienter med depression, der deltager i gruppebaseret kognitiv adfærdsterapi vha ugentligt spørgeskemaer på en app. Indledende resultater præsenteres til diskussion.

### **Visualisering af patient udbytte af kognitiv gruppeterapi v/ Sidse Arnfred**

Med data fra multicenter RCT i psykoterapi klinikker på tværs af Danmark, hvor vi undersøgte effekten af 2 slags kognitiv gruppeterapi, ser vi på effekten af behandlingen for depression målt med Becks Depression Inventory-II og Work and Social Adjustment Scale. Til visualiseringen bruges Jacobson plots, der tager højde for måleusikkerhed og klinisk meningsfulde cut-offs. Ved 6 mdrs opfølgning opnåede 29 % af patienterne remission af depression (N=118), 48 % havde et fald i depressive symptomer, og 24 % forbedredes ikke eller var i forværring. Ved baseline havde 86 % af patienterne alvorlig funktionsnedsættelse (N=124). Ved opfølgning opnåede kun 13 % et normalt funktionsområde.

### **Hvad siger patienterne om psykoterapi pakkerne? V/ Anne Bryde Christensen**

Vi har udforsket erfaringerne fra 23 patienter i kognitiv gruppe med kvalitativ metode. Fortællingerne om behandlingen afslørede seks forskellige temaer, som gennemgås: Hvordan kom jeg hertil?; At blive set, hørt og genkendt; Fælles ansvar for problemer og løsninger; Uddannelse og værkøj; Begränsninger af dette gruppeformat; og Launchpad. Patienterne fremhævede, hvordan systemiske faktorer påvirkede deres psykoterapioplevelse negativt.

### **Oplægsholdere:**

Sidse Arnfred, professor MSO psykoterapi, Forskningsenhed for Psykoterapi og Psykopatologi, Psykiatrien Vest

Jasmin Gryesten, ph.d.-stud, Forskningsenhed for Psykoterapi og Psykopatologi, Psykiatrien Vest  
Anne Bryde Christensen, seniorforsker, Forskningsenhed for Psykoterapi og Psykopatologi, Psykiatrien Vest

### **Kontaktperson:**

Sidse Arnfred

Forskningsenhed for Psykoterapi og Psykopatologi

Psykiatrien Vest Slagelse Fælledevej 6, 4. sal

4200 Slagelse

Tlf: +45 24 22 70 45

Mail: sidar@regionsjaelland.dk

---

## 11: Beroligende medicin: Anvendelse af benzodiazepiner kontra antipsykotika: Hvordan gør vi det bedst, regulering eller lægekunst? ved Andreas Hoff

Mødeledelse ved DPS' Forskningsudvalg

### Indhold:

Beroligende medicin bruges i vidt omfang mod uro, angstsymptomer og søvnbesvær. Brugen af benzodiazepiner har været udbredt, men har endt med at være udskældt nærmest udskammet ikke mindst grundet den potentielle meget alvorlige bivirkning afhængighed. En række tiltag har nu reducere forbruget, men er tilsyneladende afløst af en stigning af sederende antipsykotika i stedet, der også har alvorlige bivirkninger - bare andre slags.

Dette symposium omhandler dette skisma og forsøge at nuancere aktuelle status. Hvordan håndteres den akutte uro klinisk og det vil blive drøftet om brugen af antipsykotika bør reguleres på samme måde som anvendelse af benzodiazepiner, eller om man bør undlade, eller ligefrem igen relaksere reguleringen på området?

### OPLÆG 1:

"Forbruget af benzodiazepiner og antipsykotika over de sidste 10-20 år"

ved Mikkel Højlund, læge, ph.d.-studerende, Klinisk Farmakologi, Farmaci og Miljømedicin, Institut for Sundhedstjenesteforskning, Syddansk Universitet.

**OPLÆG 2:** "Eksisterende og kommende kliniske retningslinjer ift. valg af lægemiddel til behandling af angst-/urotilstande - og det evidensgrundlag, de bygger på"  
ved dr. med. Lone Baandrup, klinikchef, Psykiatrisk Center København.

**OPLÆG 3:** "Hvor restriktive skal vi være ved ordination af benzodiazepiner? Hvad siger retningslinjerne?"

ved prof. Martin Balslev Jørgensen, professor, Psykiatrisk Center København.

PANELDEBAT vil følge i resten af symposiets tidsrum.

---

Lørdag d. 12. marts 2022

## PRISUDELING

Forskning af medicinstuderende.

*Danske Regioner*

## PLENARY TALK

**Professor René Ernst Nielsen: Der findes et liv før døden – morbiditet og mortalitet hos patienter med svære psykiske tilstande**

Patienter med svær psykiatrisk sygdom har en forventet levetid der er 15-20 år lavere end baggrundsbefolkningen. Den højeste relative relativ risikoforørgelse for død ses ved selvmord som årsag, men størstedelen af personer med svær psykiatrisk sygdom dør af somatiske tilstande. I denne gruppe af patienter ses en markant øget forekomst af somatisk multimorbiditet og sammenlignet med baggrundsbefolkningen er risikoen forbundet hermed væsentligt større. I præsentationen vil data for primært danske forhold gennemgås, herunder data på overdødelighed, oversygelighed og forekomst af behandlingsmæssige interventioner både, primært, sekundært og tertiært.

Dertil repræsentation fra de fem regioner.

**Paneldebat: Hvad gør vi for at forbedre vores patienters fysiske sundhed?**

Moderator: Journalist Sybille Hildebrandt

**Panel:**

Lægefaglig direktør Phuong Le Reisinia – Region Midt

Lægefaglig direktør Tina Gram Larsen – Region Nord

Lægelige vicedirektør Ida Hageman – Region Hovedstaden

Ledende overlæge Birgitte Welcher – Region Sjælland

## 4. Abstracts til postersessionen

### Første forfatter

	<b>Titel</b>
1.	Is bipolar disorder associated with regretted behavior on social media and online dating sites?
2.	Pseudo-neurotic symptoms in schizophrenia: An empirical study
3.	The role of sex hormone levels and serotonin brain signaling in men with Major Depressive Disorder
4.	The role of the serotonin four receptor in Neuroticism in depressed patients and healthy individuals – a positron emission tomography study
5.	Amagerprojektet
6.	Prosody and schizophrenia
7.	Covid-19 påvirkning på mennesker i krise
8.	Sammenhæng mellem psykopatologi og socialt funktionsniveau – en systematisk litteraturgennemgang
9.	The prevalence of comorbid personality disorder in patients newly diagnosed with bipolar disorder, their first-degree relatives and healthy control persons
10.	Socio-economic functioning in patients with bipolar disorder and their unaffected sibling – results from a nation-wide population-based longitudinal study
11.	Electroconvulsive therapy and risk of road traffic accidents. A Danish register-based cohort study
12.	Smartphones based monitoring of mood and activity in unipolar depressive disorder
13.	Altered self-recognition in schizophrenia
14.	Neurobiological abnormalities in first-episode psychosis patients depend on sex
15.	Differential Effects of Aripiprazole and Amisulpride on Negative and Cognitive symptoms in Patients with First Episode Psychoses
16.	Suicidal behavior among psychiatric patients in Rwanda
17.	The use of electroconvulsive therapy en bloc in Denmark from 2006 through 2018
18.	Physical Health Profile and Associated Behavior During the COVID-19 Pandemic in Patients With Bipolar Disorder
19.	Alder, A-domme og B-domme på Psykiatrisk Center Sct. Hans og Op-søgende Retspsykiatrisk team 2019-2021
20.	Risk factors for suicide among patients receiving electroconvulsive therapy
21.	Psychiatrist's use of medication for Alcohol Use Disorders in Denmark
22.	Retinal følsomhed for blåt lys ved bipolar lidelse
23.	Catatonia

24.	Alexander Nøstdal	Motivational Factors for Attending a Specialised Outpatient Clinic for Guided Tapering of Antipsychotics
25.	Ole Köhler-Forsberg	Lithium treatment and the risk of osteoporosis: A nationwide study of 22,912 patients with bipolar disorder
26.	Mikkel Højlund	Use of chlorprothixene and the risk of diabetes and major adverse cardiovascular events: a nation-wide cohort study
27.	Mikkel Højlund	Antipsychotics, associated diagnoses and health care utilization in Denmark 2018
28.	Else Refsgaard	Salivary Cortisol Awakening Response as Predictor for Depression Severity
29.	Pernille Kølbæk	Clinical validation of the Aarhus Side effect Assessment Questionnaire (ASAQ)
30.	Kristian H. Reveles Jensen	Precision medicine in the treatment of first episode depression – establishing the BrainDrugs-Depression cohort
31.	Sofie Norlin Mølgaard	Relapse prediction during tapered antipsychotic discontinuation
32.	Inderjeet Kaur Dhillon	Biomarkers in Treatment Resistant Patients with Psychotic disorder: A Study of Brain, Blood and Cerebrospinal Fluid
33.	Martin Bernstorff	Stability of diagnostic labelling of psychiatric outpatient visits: An investigation into the transition from the second (LPR2) to the third (LPR3) version of Landspatientregistret
34.	Marco Møller	Does a Ketogenic Dietary Supplement Reduce Alcohol Withdrawal Symptoms in Humans?
35.	Nicolai Uhrenholt	Effect of Semaglutide versus placebo on psychotic symptoms and quality of life - a pre-specified secondary analysis of HISTORI: A randomized clinical trial in people with pre-diabetes and schizophrenia
36.	Pernille Kølbæk	Standardized training in rating of the Yale-Brown obsessive compulsive scale
37.	Ragnar Klein Olsen	Gut Emotions: MICROBIOTA MODULATION AND EFFECTS ON FATIGUE, DISTRESS AND NEGATIVE AFFECTIVITY IN PSYCHIATRIC PATIENTS: EXPLORATORY STUDY OF MEDIATORS
38.	Oliver Rumle Hovmand	Udredning som en fælles indsats
39.	Johan FMM Christensen	Effekten af en klinisk farmakologisk gennemgang på behandlingen af patienter med samtidig diabetes og skizofreni: FARMA-EKSPERT-KONS Add-IN
40.	Carlo Volf	Optimizing a dynamic lighting system in New Psychiatry Bispebjerg
41.	Rasmus Nejst Jensen	Opgørelse over KOMorbid angst hos patienter med Bipolar affektiv sindslidelse i remission
42.	Bahast Biuk	Biomarkers in Clozapine-respondent Schizophrenia (BICS)
43.	Anne Sofie Aggestrup	Preventing relapse of depression through better recovery of patients when transferred from psychiatry to primary care

## Is bipolar disorder associated with regretted behavior on social media and online dating sites?

Klara Rydahl, René B.K. Brund, Clara Reece Medici, Krista Straarup, Sune Puggard Vogt Straszek, Søren Dinesen Østergaard

Research Unit, Department of Affective Disorders, Aarhus University Hospital Psychiatry

**Objectives:** Individuals with bipolar disorder are prone to risk-taking behavior that is subsequently regretted. Here, we investigated whether this also occurs in relation to use of social media and online dating.

**Methods:** A questionnaire-based survey focusing on the use of social media and online dating was conducted among individuals attending an outpatient clinic for bipolar disorder, and among individuals attending two general practices in the same region (controls). The association between bipolar disorder and self-reported regretted behavior on social media/online dating sites was investigated using logistic regression with adjustment for age and sex.

**Results:** A total of 124 individuals with bipolar disorder and 196 individuals without affective disorder from the general practices (controls) formed the study sample. Among the individuals with bipolar disorder who used social media, 66% reported regretted behavior as a consequence of this use, whereas only 31% of the controls reported such behavior. The corresponding numbers for individuals who used online dating were 65% for those with bipolar disorder and 31% for the controls. Following adjustment for age and sex, bipolar disorder was associated with elevated risk of regretted behavior in relation to use of both social media (adjusted odds ratio: 3.6, 95%CI: 2.2;5.9) and online dating (adjusted odds ratio: 4.1, 95%CI: 2.1;8.0).

**Conclusions:** These findings suggest that risk-taking behavior and subsequent regret among individuals with bipolar disorder extends to social media and online dating. Cautious use of these platforms may be particularly relevant for individuals with bipolar disorder.

## Pseudo-neurotic symptoms in schizophrenia: An empirical study

Andreas Rosén Rasmussen<sup>1,2,5</sup>, Julie Nordgaard<sup>1,5</sup>, Maja Zandersen<sup>2,3,4</sup>, Erik Sandsten<sup>2,5</sup>, Josef Parnas<sup>3,5</sup>

1) Mental Health Center Amager, University of Copenhagen, Broendby, Denmark

2) Mental Health Center Glostrup, University of Copenhagen, Copenhagen, Denmark

3) Center for Subjectivity Research, University of Copenhagen, Copenhagen, Denmark

4) Department of Psychology, University of Copenhagen, Copenhagen, Denmark

5) Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

**Background:** 'Neurotic' symptomatology was described in schizophrenia in classic psychopathological literature including Kraepelin and Bleuler. From the 1950s, the diagnostic category of pseudo-neurotic schizophrenia was used to describe patients with relatively mild schizophrenia-spectrum psychopathology and a clinical presentation dominated by apparent neurotic symptomatology. "All symptoms known in neurotic illness are often present at the same time, including obsessions, compulsions, phobias, hysteria (dramatizing or dissociative phenomena), depression, hypochondriasis...and neurasthenia" (Hoch, 1949).

The aim of this study was to examine lifetime occurrence of neurotic and pseudo-neurotic symptoms in schizophrenia-spectrum disorders compared to other mental illness as well as their relation to self-disorders, positive and negative symptoms. Pseudo-neurotic symptoms are here defined as the subgroup of apparent neurotic complaints, which we, based on the literature, hypothesize to be closely associated with the schizophrenia-spectrum.

**Methods:** The sample includes 226 patients examined in previous studies in our group and diagnosed with schizophrenia or other non-affective psychosis (N=119), schizotypal personality disorder (N=51) or other mental illness (N=56, mostly affective disorders, OCD and personality disorders). They were examined with a comprehensive assessment schedule of lifetime psychopathology. From OPCRIT, SADS-L and EASE we extracted items for scales targeting classic neurotic symptoms as well as pseudo-neurotic symptoms. We explored associations between symptom dimensions with multiple linear regression.

**Results:** Patients with schizophrenia scored slightly, but significantly, higher on the scale targeting lifetime neurotic symptomatology than patients with schizotypal disorder or other mental illness. Pseudo-neurotic symptoms aggregated in schizophrenia-spectrum disorders and were significantly associated with self-disorders. When neurotic symptoms, positive and negative symptoms were included in the model, these were also significantly associated with pseudo-neurosis but to a much lesser degree than self-disorders.

**Conclusion:** Pseudo-neurotic symptoms are more closely related to self-disorders than to neurotic or other general psychopathology. These findings can inform differential diagnosis and treatment.

---

### 3

## The role of sex hormone levels and serotonin brain signaling in men with Major Depressive Disorder

Malene Ravn-Eriksson<sup>1,2,3</sup>, Kristian Høj Reveles Jensen<sup>1,2,3</sup>, Søren Vinther Larsen<sup>1,3</sup>, Kristin Köhler-Forsberg<sup>1,2</sup>, Martin Balslev Jørgensen<sup>1,2,3</sup>, Vibe G. Frokjaer<sup>1,2,3</sup>

1) Neurobiology Research Unit, Rigshospitalet, Copenhagen, Denmark

2) Psychiatric Centre Copenhagen, Copenhagen, Denmark

3) Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

**Background:** The serotonin (5-HT) system and sex hormones may contribute to the etiology of psychiatric disorders. It is not possible to measure 5-HT directly, but findings by our group suggest that brain imaging of the 5-HT4 receptor (5-HTR) provides an index of 5-HT. We have previously seen a negative association between testosterone and brain availability of 5HT4R, particularly in hippocampus, in healthy men.

We investigate for the first time if sex-hormone levels and 5HT4R-binding is associated in men with depression.

**Methods:** We investigated associations between 5-HT4R in key brain regions, depression severity, and sex hormones in men with MDD (n=27) relative to healthy men (HC, n=53) from The Center for integrated Molecular Brain Imaging database (mean 26 years, range 18-49). 5-HT4R-binding was measured by Positron Emission Tomography, depression severity by HAMD-17, and testosterone and estradiol in plasma. We examined group differences in sex hormones with an unpaired t-test. We used linear regression modeling to evaluate associations between sex hormones and 5-HT4R-binding in both groups, and in the MDD group only also with depression.

**Results:** We observed lower estradiol levels in men with MDD (mean 0.097 nmol/L) compared to HC (mean 0.122 nmol/L, p=0.001), and no difference in testosterone. In men with MDD we observed a positive association between HAMD-17 and testosterone (p=0.016) but not estradiol. We found positive associations between 5-HT4R-binding in putamen and estradiol in HC (p=0.037) and MDD (p=0.067). In contrast, we saw a borderline significant negative association in putamen for testosterone only in HC (p=0.05).

**Conclusion:** Sex hormones may influence depressive symptoms and serotonergic brain architecture. Our data support that men with MDD had lower estradiol levels than healthy men. Intriguingly, estradiol and possibly also testosterone appear to be associated with 5HT4R brain binding. Our findings highlight potential hormonal contributions in MDD including estradiol also in men.

---

## 4

### The role of the serotonin four receptor in Neuroticism in depressed patients and healthy individuals – a positron emission tomography study

Astrid Tougaard Mikkelsen<sup>1,2,3</sup>, Kristian H. Reveles Jensen<sup>1,2,3</sup>, Vibeke Høyrup Dam<sup>1,2</sup>, Martin Balslev Jørgensen<sup>1,2,3</sup>

- 1) Neurobiology Research Unit and BrainDrugs, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark
- 2) Psychiatric Centre Copenhagen, Copenhagen, Denmark
- 3) Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

**Background:** Serotonin (5-HT) is involved in several dimensions of normal human behaviour. It is not possible to measure 5-HT levels directly, but findings in our group suggest that imaging of the 5-HT4 receptor (5-HT4R) provides an index of 5-HT levels. Previously no association has been found between 5-HT4R binding and five-factor personality traits in healthy individuals. Neuroticism, the tendency to experience unpleasant and negative emotions, is strongly associated with an increased risk of depression. Nevertheless, this potential association has never been investigated in patients with major depressive disorder (MDD), where both Neuroticism and altered serotonergic neurotransmission are involved in the pathogenesis. We, therefore, for the first time, investigate the possible relationship between neocortical 5-HT4R levels and Neuroticism in unmedicated MDD patients and healthy individuals. Furthermore, we investigated if there was a sex difference.

**Methods:** We investigated associations between the 5-HT4R in the neocortex and Neuroticism in 64 unmedicated MDD patients (49 females) and 124 healthy individuals (69 females) in an age span of 18-63 years from The Center for Integrated Molecular Brain Imaging. Neuroticism was measured using the NEO-PI-R questionnaire, and the 5-HT4R binding was measured by Positron Emission Tomography. The associations between Neuroticism, 5-HT4R binding, and sex were investigated using linear regressions. The analyses were adjusted for age, sex, genetic polymorphisms of the serotonin transporter-linked promoter region (5-HTTLPR), injected mass of tracer, and scanner type.

**Results:** In our preliminary results, despite the large sample size, we found no evidence for a relationship between 5-HT4R binding and Neuroticism in healthy individuals or patients with MDD, nor a sex difference.

---

## 5

### Amagerprojektet

Heidi K. Grufstedt; Søs E. Hansen; Titia Iahoz; August G. Wang

Psykiatrisk Center Amager

**Formål:** Amagerprojektet var til slutningen af 2009 forskningsprojekter, herefter permanent. Patienter med selvmordsforsøg og/eller med selvmordstanker blev tilbuddt behandling. Formålet er gennem en opfølging på minimum 5 år at se på parametre, der kan udsige noget om efterfølgende forløb.

**Metode:** Metoden er historisk prospektiv. Alle patienter fra mellem 2010 og 2013 blev fulgt mindst 5 år.

**Resultater:** For patienter, der kom pga selvmordstanker alene blev der ikke fundet prediktive faktorer (bortset fra selvmordsforsøg fra tidligere). For patienter med baggrund i nyligt selvmordsforsøg var der blandt prediktive faktorer f.eks. ensomhed og fattigt socialt netværk.

**Konklusion:** Bortset fra traditionelle risikofaktorer, såsom tidligere selvmordsforsøg, så blev der påvist bl.a. sociale faktorer, f.eks. ensomhed og fattigt socialt netværk.

---

# 6

## Prosody and schizophrenia

Lene M. Jørgensen; Camilla Thranegaard; Hannah Plato Jørgensen; August G. Wang

Psykiatrisk Center Amager

**Purpose:** Objective acoustic measurements of monotonous and flat intonation in young Danish people with a schizophrenia diagnosis. Recent years research seem to show that this actually is possible, but more studies are being called for. Our study is such a study, and it touches a language that hasn't been examined before in this regard, Danish. Is it possible and how more precisely to separate Danish patients from controls using acoustic measures of speech samples? Which prosodic variables differentiates patients from controls? Is it possible for the patients to learn to speak less flat and monotonous?

**Method:** In this study we compared drug naive schizophrenic patients 4 men and 13 women and 18 controls, aged 18-35 years, that have all grown up in Copenhagen, speaking modern Danish standard (Rigsdansk). A series of audio recordings of participants speech was obtained in a quiet setting in an office at one of the hospitals or in the participants own home using a computer with a sound recorder and a microphone placed in front of the participant. We used two elicitation tasks for spontaneous speech. Task one: participants were asked to watch a film clip from Jurassic Park and then retell it to the researcher. Task two: the participant is given a book with pictures (Frog where are you?) and then asked to tell a story from the pictures.

**Results:** The statistical analysis shows that there is no significant differences in pitch deviation between the two groups, but in intensity deviation in task two. If we look at the main stresses in task one we find significant differences in pitch and marginally in intensity ( $p=0,063$ ). We find that F1 differentiates between groups in both task one and task two. We also find a difference in number of syllables per stress.

**Conclusion:** We find that it is possible to separate Danish patients from controls and that it is possible for the patient to learn to speak less flatly, because if we look closer at for instance the stresses, we see that they are able to make more clear stresses, but often doesn't. We also believe that patients may learn to speak more clearly and less blurred (F1). We hope and believe that our study will inspire more studies in language, schizophrenia and brain research, and that it will open the eyes for the fact that people with schizophrenia may have language problems that can be solved. Perhaps speech therapists should be involved.

## Covid-19 påvirkning på mennesker i krise

August G. Wang, Titia Lahoz, Heidi K. Grufstedt, Søs E. Hansen

Kompetencecenter for selvmordsforebyggelse, Psykiatrisk Afdeling Amager

**Formål:** Covid-19 epidemien har medført, at samfundet er blevet lukket ned, først i foråret 2020 og igen ved årsskiftet. Man ønsker at belyse påvirkningen af disse nedlukninger hos mennesker i krise.

**Metode:** Hos patienter i Kompetencecenter for selvmordsforebyggelse registreres patienters egen oplevelse af nedlukningerne, dels i foråret 2020, dels efter årsskiftet 2020/2021.

**Resultater:** Resultaterne viser betydelig påvirkning af corona-nedlukningerne, både i foråret 20 og årsskiftet 20/21. Hovedpåvirkningen er isolation og ensomhed eller lille omgangskreds. Men det fremgår også, at for nogen er ændringen fra dagligdagen ikke så stor, idet isolation og ensomhed præger dagligdagen.

**Konklusion:** Der er en betydelig påvirkning af nedlukningerne. Men den isolation og ensomhed, den medfører, er for mange en ikke ukendt virkelighed fra andre perioder. En konklusion kan være, at vi i fremtiden skal fokusere på at afhjælpe isolation og ensomhed, men at det også bør være fokus i mere normale perioder.

## Sammenhæng mellem psykopatologi og socialt funktionsniveau – en systematisk litteraturgennemgang

Rasmus Handest, Mads Gram Henriksen, Ida-Marie Mølstrøm, Julie Nordgaard

Region Hovedstaden Psykiatri, Københavns Universitet

**Introduktion:** Patienter med skizofreni er i øget risiko for at have et nedsat socialt funktionsniveau, og der er et indlysende behov for fokus på dette i forståelsen og behandlingen af patienterne. En del af det dårlige funktionsniveau er forklaret af neurokognitive problemer, men størstedelen af forklaringen er endnu ikke fundet. Formålet ned denne litteraturgennemgang er at afdække sammenhængen mellem psykopatologi og socialt funktionsniveau.

**Metode:** I juni 2021 blev foretaget en søgning på PubMed, Embase og PsychInfo, for at identificere artikler omhandlende psykopatologi og socialt funktionsniveau, kliniker-rated, hos patienter med skizofreni. Basale beskrivende data, benyttede skalaer til måling af socialt funktionsniveau og psykopatologi, samt om hvorvidt en sammenhæng mellem disse blev befundet, blev ekstraheret fra artiklerne.

**Resultater:** 830 non-duplicerede artikler blev identificeret. Ud af disse blev 68 inkluderet i den systematiske litteraturgennemgang. I 24% af artiklerne fandtes en signifikant sammenhæng mellem psykopatologi og socialt funktionsniveau, i 13% fandtes ingen sammenhæng, og i de resterende 63% var fundene blandede, mht. om der var en sammenhæng eller ej. Med enkelte undtagelser, ændredes dette ikke når man kiggede på subdomæner for psykopatologi og social funktion.

**Konklusion:** Der er ikke konsistens i fundene vedrørende sammenhæng mellem psykopatologi og socialt funktionsniveau. En mulig forklaring er en manglende fælles konceptuel forståelse for begrebet socialt funktionsniveau, indbyggede udfordringer i de hyppigst benyttede rating skaler til psykopatologi, og manglende konsistens i målingen af socialt funktionsniveau.

## 9

# The prevalence of comorbid personality disorder in patients newly diagnosed with bipolar disorder, their first-degree relatives and healthy control persons

Niels Villemoes, Kimie Sletved, Klara Coello, Hanne Lie Kjærstad, Sharleny Stanislaus, Jens Bukh, Maj Vinberg, Lars Vedel Kessing

Mental Health Services in the Capital Region of Denmark

**Background:** Bipolar disorder is often a progressive disorder with high risk of recurrence of depressive and manic episodes as well as risk of functional disability and decreased quality of life. Previous studies have found a high prevalence of comorbid personality disorder in patients suffering from bipolar disorder and this has been shown to generate a negative impact in response to treatment, increased suicidal behavior and reduced functioning. The prevalence varies greatly among different studies ranging from 25%-73%. However, all previous studies have included patients with more chronic forms of bipolar disorder which is associated with increased prevalence of comorbid personality disorders.

No study has investigated the prevalence of comorbid personality disorders in a sample of patients with newly diagnosed bipolar disorder. These patients are often less affected by their illness and exhibit higher functioning compared to more chronic patients.

**Aims and hypotheses:** The aim of this present study is to investigate the prevalence of comorbid personality disorder in patients with newly diagnosed/first episode bipolar disorder, their first-degree unaffected relatives and healthy control persons. We hypothesize that the prevalence of comorbid personality disorder is 1) lower in patients newly diagnosed with bipolar disorder compared to patients with varying duration of illness, 2) higher in patients with bipolar disorder and - to a lesser degree – in their unaffected first-degree relatives compared with healthy control persons and 3) within patients associated with severity of depressive and manic symptoms and with longer illness duration and number of prior affective episodes and poorer psychosocial functioning.

**Methods:** The present study is part of the ongoing longitudinal Bipolar Illness Onset study (BIO study). The following participants were recruited: 400 newly diagnosed/first episode bipolar patients, 200 unaffected first-degree relatives to the newly diagnosed/first episode bipolar patients and 200 healthy control persons without a family history of affective disorders.

To assess comorbid personality disorders, the Structured Clinical Interview for DSM-disorders (SCID-II) was performed and only when patients were in full or partial remission.

**Clinical implications:** Previous studies on patients with bipolar disorder have shown large differences on reported prevalence of comorbid personality disorders. Since a comorbid personality disorder among patients with bipolar disorder affects life quality and prognosis, it is essential to report the prevalence in patients in full or partial remission newly diagnosed with bipolar disorder.

## Socio-economic functioning in patients with bipolar disorder and their unaffected sibling – results from a nation-wide population-based longitudinal study

Kimie Sletved, Simon Christoffer Ziersen, Per Kragh Andersen, Maj Vinberg, Lars V. Kessing

Mental Health Services in the Capital Region of Denmark

**Background:** It is well established that patients with bipolar disorder (BD) have impaired overall functioning. However, whether these changes persist over time and whether the overall impaired functioning translates into their unaffected siblings (US) is not well studied.

**Methods:** We used Danish nation-wide population-based longitudinal register linkage to obtain data on educational achievement, employment status, personal income, cohabitation and marital status in 19.955 patients diagnosed with BD as inpatients or outpatients and their 13.923 US. To each patient with BD and each US ten sex, age and calendar matched control individuals were matched from the general population into two separate control groups.

**Results:** I) At baseline, patients with BD had lower odds of having achieved the highest educational level ( $OR=0.75 [0.73-0.77]$ ), being employed ( $OR=0.16 [0.159-0.168]$ ), having achieved the 80% highest quartile of income ( $OR=0.33 [0.32-0.35]$ ), cohabitating ( $OR=0.44 [0.43-0.46]$ ) and being married ( $OR=0.54 [0.52-0.55]$ ) at first contact to hospital psychiatry compared with control individuals from the general population.

II) Similarly, US to patients with BD had at baseline lower odds of having achieved the highest educational level ( $OR=0.86 [0.83-0.89]$ ), being employed ( $OR=0.82 [0.78;0.86]$ ), having achieved the 80% highest quartile of income ( $OR=0.86 [0.82-0.91]$ ), cohabitating ( $OR=0.93 [0.90-0.97]$ ) and being married ( $OR=0.95 [0.91-0.99]$ )

III) At follow-up, patients with BD had lower odds of enhancing to the highest income category ( $OR=0.68 [0.64;0.73]$ ), being employed ( $OR=0.13 [0.12;0.13]$ ), cohabitating ( $HR=0.73 [0.70;0.77]$ ) and being married ( $HR=0.55 [0.52;0.59]$ ) during follow-up than controls.

IV) Finally, the US had lower odds of enhancing their income and employment during follow-up, but not in cohabitation and marital status compared with controls.

**Conclusions:** Socio-economic functioning was substantially decreased in patients with BD and did not improve after the initial hospital contact within the 23 years of follow-up, highlighting a severe and overlooked treatment gap. Further, socioeconomic functioning was decreased in US to patients with BD compared with controls from the general population, indicating a familial heritability in functioning. This finding reflects that the risk of developing bipolar disorder and the associated socio-economic functioning seems driven by shared gene and environmental factors.

## Electroconvulsive therapy and risk of road traffic accidents. A Danish register-based cohort study

Simon Hjerrild, Martin Balslev Jørgensen, Ole Henrik Dam, Elisabeth Tehrani, Poul Videbech, Merete Osler

**Objective:** To examine if electroconvulsive therapy (ECT) was associated with the subsequent risk of being involved in a road traffic accident.

**Methods:** A cohort of all 375,435 patients above 18 years with their first psychiatric hospital contact between 2003 through 2017 in the Danish National Patient Registry was followed for road traffic accidents until December 2018. Associations between ECT and road traffic accidents were examined using Cox regression analyses with multiple adjustments and using propensity score matching on sociodemographic and clinical variables.

**Results:** A total of 8486 (0.2%) patients were treated with ECT. During the median follow-up of 5.9 years, 778 (12.5%) of these patients were involved in a road traffic accident and the unadjusted incidence of road traffic accidents was lower among these patients (IR 15.5 per 1000 patient-years; (95% confidence interval (CI): 14.5 – 16.7) compared to patients not treated with ECT (IR 20.0 per 1000 patient-years; 95% CI: 20.0 – 20.3)). In the Cox models, ECT was not associated with road traffic accidents after adjustment for all covariates ( $HR = 1.00$  (95% CI: 0.92 – 1.08)) or in the propensity score-matched sample ( $HR = 0.91$  (95% CI: 0.83 – 1.08)). The HRs did not vary materially with follow-up time or when analyses were stratified on sex, age or type of hospital contact.

**Conclusion:** ECT is not associated with the risk of being involved in road traffic accidents in Denmark.

---

## 12

### Smartphones based monitoring of mood and activity in unipolar depressive disorder

Morten Tønning

Psykiatrisk Center Nordsjælland og Psykiatrisk Center København

**Background:** Smartphones comprise a promising tool for symptom monitoring in patients with unipolar depressive disorder (UD). We investigated the association between smartphone-collected monitoring data and validated psychiatric ratings and questionnaires in a well-characterized clinical sample of patients diagnosed with UD.

**Methods:** Smartphone data, clinical ratings, and questionnaires from patients with UD were collected six months following discharge from psychiatric hospitalization. Smartphone data were collected daily. Ratings were conducted three times during the study. We investigated associations between 1) smartphone-based patient-reported mood and activity and clinical ratings and questionnaires; 2) automatically generated smartphone data and clinical ratings, and 3) automatically generated smartphone data and smartphone-based patient-reported mood and activity.

**Results:** A total of 74 patients provided 11,368 days of smartphone data, 196 ratings, and 147 questionnaires. We found that: 1) patient-reported mood and activity were associated with clinical ratings and questionnaires ( $p < 0.001$ ); 2) Out of 30 investigated associations on automatically generated data and clinical ratings of depression, four showed statistical significance. Further, lower psychosocial functioning was associated with fewer daily steps ( $p=0.036$ ) and increased number of incoming ( $p=0.032$ ), outgoing ( $p=0.015$ ) and missed calls ( $p=0.007$ ), and longer phone calls ( $p=0.012$ ); 3) Out of 20 investigated associations between automatically generated data and daily patient-reported mood and activity, 12 showed statistical significance.

**Conclusion:** Smartphone-based self-monitoring is feasible and associated with clinical ratings in UD. Some automatically generated data on behavior may reflect clinical features and psychosocial functioning, but these should be more clearly identified in future studies, potentially combining patient-reported and smartphone-generated data.

---

# 13

## Altered self-recognition in schizophrenia

Karl Erik Sandsten

BRIDGE Københavns Universitet

Self-alienation is a common characterization of various disturbing experiences in patients with schizophrenia. A vivid example comes from patient reports of not recognizing themselves when inspecting their specular image in the mirror.

By applying the multisensory paradigm of the Enfacement Illusion, this study empirically addresses the specular Self-Other discrimination in patients with schizophrenia. 35 patients diagnosed with schizophrenia and 35 healthy matched controls were enrolled in the study.

Results found that the group of patients with schizophrenia had a significant skewed self-other discrimination towards the other at baseline. Furthermore, the effect of visuo-tactile stimulation on self-recognition in the schizophrenia patients was significantly altered after both synchronous and asynchronous stimulation compared to baseline. This contrasted with healthy controls which in line with earlier studies only had significantly different self-recognition after synchronous stimulation.

The study thus suggests that patients with schizophrenia have deviations in their specular self-recognition compared to healthy controls. Moreover, that temporal factors in multisensory integration may contribute to alterations of self-related stimuli in patients with schizophrenia.

## 14

### Neurobiological abnormalities in first-episode psychosis patients depend on sex

Kirsten Borup Bojesen<sup>1\*</sup>, Anne Sigvard<sup>1</sup>, Karen Tangmose<sup>1</sup>, Bjørn H. Ebdrup<sup>1,2</sup>, Egill Rostrup<sup>1</sup>, Birte Glenthøj<sup>1,2</sup>

- 1) Center for Neuropsychiatric Schizophrenia Research (CNSR) & Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research (CINS), Mental Health Center Glostrup, University of Copenhagen, Glostrup, Denmark
- 2) Faculty of Health and Medical Sciences, Department of Clinical Medicine, University of Copenhagen, Denmark

**Background:** Disturbances in cortico-striato-thalamo-cortical brain networks are believed to underlie psychosis. In line with this, we have found reduced prefrontal GABA levels and increased glutamatergic turnover in thalamus in antipsychotic-naïve patients with first-episode psychosis whereas striatal activity as assessed with cerebral perfusion was unaltered. However, it remains unknown if the brain disturbances differ between sexes. To address this, we re-analyzed the data for male and female patients separately.

**Methods:** We recruited 65 antipsychotic-naïve patients (36 females and 29 males, age:  $22.6 \pm 4.9$  years) with schizophrenia or psychotic disorder and 55 healthy controls (34 females and 21 males, age:  $22.2 \pm 4.3$  years). Psychopathology was assessed with the positive and negative syndrome scale (PANSS). GABA levels in prefrontal cortex and glutamate levels in the thalamus were estimated with magnetic resonance spectroscopy and striatal perfusion with the pseudo-Continuous Arterial Spin Labelling (pCASL) sequence on a 3T scanner.

**Results:** Psychopathology: There were no sex differences in PANSS-total ( $p=0.82$ ) or the positive ( $p=0.30$ ), negative ( $p=0.07$ ), or general ( $p=0.67$ ) sub-scores. Prefrontal GABA levels: There were significantly lower levels of prefrontal GABA in male patients ( $p=0.02$ ) but not in female patients ( $p=0.26$ ). Thalamic glutamate levels: There were significantly higher glutamate levels in thalamus of male patients with a schizophrenia diagnosis ( $p=0.04$ ), but not in female patients with a schizophrenia diagnosis ( $p=0.75$ ). Striatal perfusion: There were significantly higher striatal perfusion in male patients ( $p=0.04$ ), but not in female patients ( $p=0.12$ ).

**Discussion:** The present findings show that the reduced prefrontal GABA and increased thalamic glutamate levels found in antipsychotic-naïve first-episode patients are driven by male patients. Moreover, changes in striatal perfusion are sex dependent. This support previous findings of sex differences in the neurobiology underlying psychotic disorder. Future studies should investigate if the effect, side-effects, and brain changes after antipsychotic treatment differs among sexes as well.

## Differential Effects of Aripiprazole and Amisulpride on Negative and Cognitive symptoms in Patients with First Episode Psychoses

Mette Ødegaard Nielsen<sup>1,2\*</sup>, Tina Dam Kristensen<sup>1</sup>, Kirsten Borup Bojesen<sup>1</sup>, Birte Glenthøj<sup>1,2</sup>, Cecilie Lemvigh<sup>1</sup>, Bjørn H. Ebdrup<sup>1,2</sup>

- 1) Mental Health Center, Glostrup, Copenhagen University Hospital – Mental Health Services CPH, Copenhagen, Denmark
- 2) Department of Clinical Medicine, Faculty of Health and Medical Science, University of Copenhagen, Copenhagen, Denmark

**Background:** Aripiprazole is hypothesized to have an effect on negative and cognitive symptoms in schizophrenia. Likewise, amisulpride is one of the only second-generation antipsychotics where an effect on negative symptoms has been reported. Both compounds are recommended as first line treatment in patients with first episode psychoses. In the present study, we compare the effect of aripiprazole and amisulpride in patients with first episode psychoses.

**Methods:** Psychopathology and cognitive measures from two consecutive cohorts of antipsychotic-naïve first episode psychotic patients were obtained before and after six weeks of antipsychotic monotherapy with either aripiprazole or amisulpride. Matched healthy controls were included to account for retest effects on the cognitive measures. Analyses of variance (Repeated measures ANOVA) were performed to detect effect of time and possible cohort\*time interactions.

**Results:** Longitudinal six week data were obtained from 47 patients (20 females, age  $24.5 \pm 6$  years) treated with amisulpride (mean dose  $276 \pm 173$  mg), and 48 patients (24 females, age  $22.9 \pm 4$ ) treated with aripiprazole (mean dose  $10 \pm 4.7$  mg). For the Wallwork negative symptom dimension, there was a cohort\*time interaction ( $F_{1,93}=4.29$ ,  $p=0.041$ ) and an effect of time ( $F_{1,93}=6.033$ ,  $p=.016$ ) which was solely driven by an improvement in patients treated with aripiprazole ( $t_{47}=4.1$ ,  $p<.001$ ). For the eight cognitive measures, no cohort\*time interaction was found, neither was cognitive improvement in any of the cohorts when accounting for retest effect.

**Conclusion:** Patients treated with aripiprazole improved in negative symptoms, which was not the case for patients treated with amisulpride. This may point to a general effect of partial D2 antagonist on negative symptoms, also in patients with first episode psychoses. We found no indication of a superior effect on cognitive functions, thus results from previous studies pointing to an effect of aripiprazole on cognitive functions may have been biased by retest effects.

---

# 16

## Suicidal behavior among psychiatric patients in Rwanda

Maja Grønlund Bendtsen

Psykiatrisk Center Ballerup

**Background:** Every year more than 700.000 people die due to suicide. More than half of the people completing suicide in low- and middle-income countries (LMICs) have an underlying mental health disorder. Of all mental health disorders, bipolar disorder has the highest occurrence of suicide with a rate 20-30 times that of the general population. There is no national suicide prevention strategy in Rwanda and no treatment guidelines. Suicide has been under-researched in Rwanda and there are no studies assessing suicidal behavior among people with a history of suicide behavior or with a diagnose of a mental health disorder, nor any studies assessing help-seeking behavior of those at risk of suicide. Additionally, suicide is a great taboo.

**Aims:** The overall aim is to explore the prevalence and experiences of suicidal behavior among individuals with bipolar disorder in Rwanda to identify potentially and culturally adequate interventions to help those people in risk of suicide. Specifically, the study will explore the frequency of suicidal ideation and behavior as well as how suicidal behavior is experienced among people who previously have attempted suicide in Rwanda, including their warning signs and help-seeking behavior.

**Methods:** The study uses a mixed-method approach with quantitative data-collection on the prevalence of suicidal behavior among people with bipolar disorder and qualitative interviews with people with a history of suicidal behavior conducted with a phenomenological approach.

**Results:** Analyses are ongoing, and results will be presented at the conference.

**Discussion:** The findings of this research will highlight the need to implement policies and interventions to prevent suicide attempts in LMIC.

**Learning objectives:** It is expected that information gained from exploring the living experience of suicidal behavior, will bring knowledge on how potentially interventions program can help those at risk of suicide in Rwanda.

## The use of electroconvulsive therapy en bloc in Denmark from 2006 through 2018

Marie I. Pedersen<sup>1,2</sup>, Christopher Rohde<sup>1,2</sup>, Estela Salagre<sup>1,2</sup>, Søren D. Østergaard<sup>1,2</sup>

1) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

2) Department of Affective Disorders, Aarhus University Hospital – Psychiatry, Aarhus, Denmark

**Objectives:** Electroconvulsive therapy (ECT) en bloc consists of ECT treatment on at least two consecutive days and is recommended by Danish treatment guidelines for severe presentations of delirium, depressive stupor, treatment-resistant mania/psychosis, refusal/inability to eat/drink and imminent risk of suicide. The most recent report on the use of ECT en bloc in Denmark was published in 1997. Therefore, the aim of this study was to provide an update on the more recent use of ECT en bloc in Denmark.

**Methods:** Based on data covering all patients receiving ECT from the Danish national registers, we characterized the use of ECT en bloc (defined as ECT on at least two consecutive days) in the period from 2006 to 2018. Furthermore, we compared mortality rates between patients receiving ECT en bloc to patients receiving standard regimen ECT (i.e., not en bloc), matched on sex, year of birth, year of ECT, and treatment indication.

**Results:** The use of ECT en bloc in Denmark was rather constant in the period from 2006-2018 (approximately 140-180 patients treated per year). The most common treatment indications were unipolar depression (41%), psychotic disorder (23%) and bipolar disorder (21%), and the vast majority (90%) received ECT en bloc voluntarily. A total of 7% of those receiving ECT en bloc died within 1 year after the treatment and the mortality rate ratio for ECT en bloc compared to standard regimen ECT was 1.42 (95% CI 1.03-1.95).

**Conclusions:** The use of ECT en bloc in Denmark is quite stable both in terms of the number of patients treated as well as the treatment indications. In accordance with its use in very severe conditions, those receiving ECT en bloc have an elevated mortality rate compared to those receiving standard regimen ECT, warranting careful monitoring in the months following the treatment.

## Physical Health Profile and Associated Behavior During the COVID-19 Pandemic in Patients With Bipolar Disorder

Jon Dyg Sperling<sup>1,2</sup>, Nina Dalkner<sup>3</sup>, Christina Berndt<sup>4</sup>, Eva Fleischmann<sup>3</sup>, Michaela Ratzenhofer<sup>3</sup>, Julia Martini<sup>4</sup>, Andrea Pfennig<sup>4</sup>, Michael Bauer<sup>4</sup>, Eva Reininghaus<sup>3</sup>, Maj Vinberg<sup>1,2</sup>

- 1) Mental Health Center, Northern Zealand, Copenhagen University Hospital – Mental Health Services CPH, Copenhagen, Denmark,
- 2) Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark,
- 3) Department of Psychiatry and Psychotherapeutic Medicine, Medical University Graz, Graz, Austria,
- 4) Department of Psychiatry & Psychotherapy, Faculty of Medicine, Carl Gustav Carus University Hospital, Technische Universität Dresden, Dresden, Germany

**Background:** The COVID-19 pandemic has led to an increased psychological strain on public mental health and may impact behavioral, mental, and physical health, presumably with effects on patients with severe mental disorders. This study examines pandemic-related physical and mental health and (compensatory) behavioral changes, in patients with BD as compared to healthy control individuals.

**Method:** Physical and mental health and self-reported changes in daily structure and behavior due to the pandemic were assessed using a self-constructed questionnaire and the brief symptom inventory (BSI) in Germany, Austria, and Denmark in individuals with BD and a healthy control group.

**Results:** The present study included 118 individuals with BD and 215 healthy controls. Individuals with BD reported statistically significant higher physical risk burden, increased weight gain, more physical comorbidities, and a decrease in physical activity and they further reported higher rates of COVID-19 testing, had more worries concerning health, and experienced more anxiety but less social distancing.

**Conclusion:** The COVID-19 pandemic seems to have a greater impact on physical health in individuals with BD than in healthy controls. Individuals with BD appear to be having more difficulties compensating their behavior due to the pandemic which could amplify the effect of risk factors associated with poorer physical health. This highlights the necessity for optimizing and targeting the overall treatment of both mental and physical health in patients with BD during periods with far-reaching changes such as the COVID-19 pandemic.

**Limitations:** Sampling issues and self-report forms, selectivity (missing elderly, and those lacking access or knowledge of technology)

## Alder, A-domme og B-domme på Psykiatrisk Center Sct. Hans og Opsøgende Retspsykiatrisk team 2019-2021

Johan Øhlenschlæger, Thomas Schütze, Elisabeth Myhre, Stine Wissing, Lene Westergaard Birk

Retspsykiatrisk Afd. R, Psykiatrisk Center Sct. Hans

**Formål:** At indsamle data om alder, retslige foranstaltninger og statsborgerskab, i en retspsykiatrisk population over tid (tværsnitsundersøgelse sommer 2019, 2020 og 2021), mhp. at kunne erkende eventuelle ændringer og for at have et datagrundlag ved opfølgning, efter populationen ultimo 2021 flytter til nyt hospital.

**Metode:** Manuel optælling af data om alder, statsborgerskab, og retslige foranstaltninger, o.a. ikke personidentificerbart.

**Resultater:** Se nedenstående tabel.

**Konklusion:** Der er nu et datagrundlag for at erkende ændringer i data for denne afdelings retspsykiatriske population. Antal A-domme er steget og antal B-domme er faldet. Populationens gennemsnitsalder er overraskende høj.

Forkortelser: k: kvinder, m: mænd, ROPS: Opsøgende retspsykiatrisk team (Sct. Hans).

	2019	2020	2021
Antal patienter	110, 13 k, 97 m	109, 17 k, 92 m	103, 16 k, 87 m
Alders gennemsnit-år	42	44	43
Alder interval-år	19-77	20-78	21-79
A-domme	60	66	72
B-domme	40	35	24
Udviste	17	16	13
§ 73	2	2	1
§ 78	1	4	4
Forvaring	1	1	1
Antal Nationaliteter	20	21	23
Fødeland	Danmark 46, Somalien 9, Tyrkiet 13, Iran 6, Afghanistan 4, Grønland 3, Irak 2, Libanon 2, Polen 2, Bosnien 1, Sverige 1, Makedonien 1, Marokko 1, Serbien 1, Rusland 1, Uganda 1, Moldavien 1, Libyen 1, Zambia 1, Vietnam 1	Danmark 51, Somalien 10, Tyrkiet 13, Iran 6, Afghanistan 6, Grønland 3, Irak 5, Libanon 2, Polen 3, Bosnien 2, Sverige 0, Makedonien 1, Marokko 1, Serbien 1, Rusland 1, Uganda 1, Moldavien 1, Sydkorea 1, Libyen 1, Zambia 1, Vietnam 1	Danmark 58, Somalia 4, Tyrkiet 8, Iran 4, Afghanistan 3, Grønland 3, Irak 0, Libanon 0, Polen 1, Bosnien 2, Sverige 1, Makedonien 1, Serbien 2, Rusland 1, Uganda 1, Moldova 1, Sydkorea 0, Libyen 0, Zambia 0, Vietnam 2, Holland 1, Liberia 1, Algeriet 1
ROPS	77 patienter, 5 k, gennemsnitsalder 40,7	81 patienter, 6 k, gennemsnitsalder 38,7, interval 21-66	78 ptt, 9 k, gennemsnitsalder 39,1 Interval 22-66

## Risk factors for suicide among patients receiving electroconvulsive therapy

Anders Spanggård<sup>1,2</sup>, Christopher Rohde<sup>1,2</sup>, Søren D. Østergaard<sup>1,2</sup>

1) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

2) Department of Affective Disorders, Aarhus University Hospital – Psychiatry, Aarhus, Denmark

**Objectives:** Electroconvulsive therapy (ECT) is a commonly used treatment for patients with severe unipolar depression, bipolar disorder and psychotic disorder, who have not responded to other treatments. In these disorders, suicidality is a common and severe problem. The anti-suicidal effect of ECT is well established, but due to the substantially elevated baseline risk, individuals receiving ECT remain a high-risk group with regard to suicide. In the present study, we aimed to quantify this risk and to identify risk factors for completed suicide among patients receiving ECT.

**Methods:** We used the nationwide Danish registers to identify all patients that initiated ECT between January 1, 2006 and December 31, 2016. These patients were matched on sex and age to 10 reference individuals from the general Danish population. First, we compared 2-year all-cause mortality and suicide mortality between patients that initiated ECT and the sex- and age-matched reference individuals. Second, we investigated if any patient baseline characteristics (at the time of ECT initiation) were associated with subsequent suicide. Unadjusted Cox proportional-hazards regression were used for all analyses.

**Results:** A total of 11,780 patients receiving ECT and 117,800 reference individuals were included in the analyses. Among the patients receiving ECT, 845 died within two years and 161 of those (19%) died from suicide. Compared to the reference individuals, patients receiving ECT had an elevated mortality rate (hazard ratio (HR): 2.3, 95%CI: 2.2-2.5) and a substantially elevated suicide rate (HR: 44.5, 95%CI: 31.1-63.6). Among the patients receiving ECT, we identified the following risk factors for suicide: Male sex (HR: 2.3, 95%CI: 1.7-3.1); Medium-term- (HR: 1.5, 95%CI: 1.0-2.2) or long-term higher education (HR: 1.9 (1.1-3.1); and substance abuse (HR: 2.0, 95%CI: 1.4-2.8).

**Conclusions:** Patients receiving ECT represent a high-risk group with regard to suicide. Among patients receiving ECT, those who are male, have medium-higher education, or suffer from substance abuse are at particularly elevated risk.

## Psychiatrist's use of medication for Alcohol Use Disorders in Denmark

Laura Schmidt Jensen<sup>1</sup>, Marco Møller<sup>1</sup>, Ulrik Becker<sup>2</sup>, Anders Fink-Jensen<sup>1</sup>

- 1) Psychiatric Center Copenhagen, Rigshospitalet and University of Copenhagen  
2) National Institute of Public Health and University of Southern Denmark

**Background:** Alcohol use disorders (AUDs) and related health issues are a huge problem for patients and their relatives, with substantial societal cost. Treatment is primarily psychosocial therapy and can be combined with pharmacotherapy. The Danish National Clinical Guidelines recommend therapy combined with acamprosate or naltrexone and advises that disulfiram is only used after careful consideration due to limited evidence and risk of adverse effects. Despite this, disulfiram continues to be the most prescribed drug in Denmark, according to statistical data from the authorities. Up to 50% of patients with AUDs have a concurrent psychiatric disorder – therefore doctors in psychiatry are likely to meet and treat patients with AUDs. This study investigates whether doctors in psychiatry deviate from guidelines of AUD treatment. Furthermore, we hope to gain knowledge about experience of AUD treatment among doctors in psychiatry, what pharmacotherapy they choose and why.

**Methods:** Members of Danish Psychiatric Society were invited by email to participate in an anonymous survey via a secure link. Members include doctors with specialty in psychiatry, residents of psychiatry and retired doctors. The design was primarily multiple choice and contained 42 items. Excel and SPSS were used for statistical analyses.

**Results:** Out of the 1126 members of DPS 227 participated. Due to incomplete answers, 41 were excluded and therefore 186 participants were included for analysis. Among the 52% choosing to initiate treatment of AUDs themselves, 59% choose disulfiram and 25% choose acamprosate, either alone or in combination with psychosocial therapy. Among all participants, 57% choose disulfiram as their first drug of choice. There was no significant difference in first drug of choice between psychiatrists and residents ( $P=0.202$ ) nor was there any association between first drug of choice and overall length of employment in psychiatry ( $P=0.219$ ). Most doctors had experience with disulfiram (95%) followed by acamprosate (66%). The reasons of choosing disulfiram were primarily due to i) experience, ii) meeting patients' wishes and iii) limited experience and knowledge of other drugs.

**Conclusion:** Danish doctors in psychiatry follow the tendencies seen in registers of prescribed medicine and primarily choose disulfiram as medical treatment of AUDs, even though national guidelines advise otherwise. The study is not a complete clarification of AUD treatment in Denmark, but these data indicate that the discrepancy between national guidelines and clinical practice could have additional focus and be investigated further. The findings could, with great advantage, be tested in a larger population of Danish doctors.

### Retinal følsomhed for blåt lys ved bipolar lidelse

Helle Østergaard Madsen<sup>1</sup>, Shakoor Ba-Ali<sup>2</sup>, Ulla Knor<sup>1</sup>, Steffen Heegaard<sup>2</sup>, Henrik Lund-Andersen<sup>2</sup>, Ida Hageman<sup>3</sup>, Klaus Martiny<sup>1</sup>, Lars Vedel Kassing<sup>1</sup>

1) CADIC, Psykiatrisk Center København, Rigshospitalet

2) Øjenklinikken, HovedOrtoCentret, Rigshospitalet-Glostrup Hospital

3) Region Hovedstadens Psykiatri

**Formål:** En gruppe lysfølsomme ganglieceller i nethinden, intrinsically photosensitive retinal ganglion cells (ipRGC), medierer lysets ikke-billeddannende effekter, bl.a. pupilrefleks, melatoninudskillelse og døgnrytmeregulering. IpRGC-aktiviteten kan kvantificeres ved pupillometri, da stimulation af nethinden med blåt lys medfører en specifik vedvarende pupilkontraktion, det såkaldte post-illumination pupillary response (PIPR). Vi undersøgte forskelle i PIPR mellem personer med bipolar lidelse (BL), deres raske førstegradsslægtninge (RS) og raske kontrolpersoner (RK) for at undersøge hypotesen om en øget retinal lyssensitivitet ved bipolar lidelse.

**Metode:** Patienter med nydiagnosticeret bipolar lidelse, deres raske førstegradsslægtninge og raske kontroller blev undersøgt med pupillometri samt vurderet for aktuelle symptomer med Hamilton Depression Rating Scale-17 item og Young Mania Rating Scale. Efter farmakologisk pupildilatation af det ene øje og 5 minutters mørkeadaptation blev øjet stimuleret med henholdsvis rødt og blåt lys i 20 sekunder. Pupildiameteren i det ikke-stimulerede øje blev kontinuerligt målt før, under og efter hver lysstimulation.

**Resultater:** Ialt 88 personer blev undersøgt med pupillometri, heraf 31 BL, 22 RS og 35 RK. Der var ingen signifikante forskelle mellem PIPR i de tre grupper (BL:30.2%, RS: 33.3%, RK=34.6%). Hos BL-deltagere i fuld remission (n=9) var PIPR nedsat i forhold til kontrolgrupperne (24.5%, p=0.03). Der var en direkte korrelation mellem PIPR og sygdomsvarighed (7%/10 år, p = 0.02).

**Konklusion:** Resultaterne støtter ikke hypotesen om en øget retinal lysfølsomhed hos patienter med nydiagnosticeret bipolar lidelse. Longitudinelle undersøgelser vil vise, om lysfølsomheden varierer med symptombyrde og sygdomsvarighed.

---

## 23

### Katatoni – et overset syndrom

Müzeyyen Özgür, Anna Tania Podlaska Mariager & Raben Rosenberg

Psykiatrisk Center Amager, Region Hovedstadens Psykiatri

This review summarises the knowledge of catatonia, which is a neuropsychiatric syndrome with altered psychomotor and behavioural symptoms as well as autonomic dysfunction seen in a variety of psychiatric, neurologic and medical conditions. However, catatonia frequently remains unrecognised by clinicians. The classification of catatonia differs significantly in the international classifications, reflecting the controversy regarding the concept of catatonia and its complex symptomatology. Different rating scales are developed to diagnose catatonia in clinical practice. First-choice treatment is benzodiazepines and ECT regardless of underlying condition.

## Motivational Factors for Attending a Specialised Outpatient Clinic for Guided Tapering of Antipsychotics

Alexander Nøstdal<sup>1,2</sup>, Rikke Hilker<sup>1,2</sup>, Christina Halgren Harding<sup>1</sup>, Mette Ødegaard Nielsen<sup>1,2</sup>, Jimmi Nielsen<sup>1,2</sup>

1) Mental Health Center, Glostrup, Copenhagen University Hospital – Mental Health Services CPH, Copenhagen, Denmark  
2) Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark

**Background:** In 2018, a specialised outpatient clinic for tapering antipsychotics was established at Mental Health Centre Glostrup. Here we present data on the referred patients regarding their level of function, symptoms, adverse effects, motivation for and previous experiences with discontinuing antipsychotic medication.

**Methods:** Patients were referred by outpatient clinics and from general practitioners. Level of functioning was estimated with the Global Assessment of Function scale, symptom severity was rated using Positive and Negative Syndrome Scale (PANSS), and adverse effects was measured using Udvælget for Kliniske Undersøgelsers side effect rating scale (UKU).

Upon enrolment participants filled in an open-ended questionnaire regarding their motivation for discontinuing antipsychotic medication, and disclosed previous experiences, if any.

**Results:** Baseline data was collected on 88 patients (56% female, n=49) with schizophrenia. Mean GAF score was 47 (SD 10.3; range 31-82) and PANSS total score was 64 (SD 16.2; range 34-108). Symptomatic remission was seen in 18 (21%) patients.

The motivational questionnaire was filled in by 78 patients. Adverse effects were listed by 54 (71%) as their motivation, while clarification of need was listed by 22 (29%) of the patients. Other reasons were worries about long-term effects; disagreeing with diagnosis; insufficient symptom reduction; feeling of being stigmatized or hoping to be normal. The most prominently reported side effects were weight gain, sexual or cognitive dysfunctions. Previous experience with discontinuation of antipsychotics was reported by 42 (55%) patients among whom 23 (55%) admitted a symptomatic relapse.

**Discussion:** The listed motivational factors for discontinuing antipsychotics are in line with previous studies examining patients discontinuing on their own initiative and indicates that these patients may be willing to follow a guided tapering program. The relative high proportion of patients reporting relapse during previous discontinuation attempts, indicates that these experiences do not serve as a subjective barrier for future attempts.

## Lithium treatment and the risk of osteoporosis: A nationwide study of 22,912 patients with bipolar disorder

Ole Köhler-Forsberg<sup>1,2,3</sup>, Christopher Rohde<sup>2,3</sup>, Andrew A. Nierenberg<sup>2,3,4,5</sup>, Søren Dinesen Østergaard<sup>2,3</sup>

1) Psychosis Research Unit, Aarhus University Hospital - Psychiatry, Aarhus, Denmark

2) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

3) Department of Affective Disorders, Aarhus University Hospital - Psychiatry, Aarhus, Denmark

4) Dauten Family Center for Bipolar Treatment Innovation, Massachusetts General Hospital, Boston, USA

5) Harvard Medical School, Boston, USA

**Background:** Osteoporosis, a systemic skeletal disorder associated with substantial morbidity and mortality, has been suggested to be particularly common among individuals with bipolar disorder. Lithium, a first-line mood-stabilizing treatment for bipolar disorder, may have bone-protecting properties.

**Methods:** We conducted a cohort study including all individuals in Denmark receiving their first ICD-10 diagnosis of bipolar disorder in the period from January 1, 1996 to January 1, 2019. For each patient with bipolar disorder, five age- and sex-matched individuals were randomly drawn from the general population. For the patients with bipolar disorder, we identified all treatment periods with lithium, antipsychotics, valproate and lamotrigine. The first exposure was bipolar disorder (comparison of the risk of osteoporosis among patients and reference individuals). The second exposure was treatment with lithium, antipsychotics, valproate and lamotrigine (comparison of the risk of osteoporosis among patients with bipolar disorder receiving or not receiving these drugs). The outcome was osteoporosis, identified via hospital diagnoses and prescribed medications. First, we compared the incidence of osteoporosis between patients with bipolar disorder and the reference individuals (earliest start of follow-up at the age of 40 years) using Cox regression. Subsequently, we compared the incidence of osteoporosis for patients receiving treatment with lithium, antipsychotics, valproate and lamotrigine, respectively, with that of patients not treated with these medications.

**Results:** We followed 22,912 patients with bipolar disorder (median age 50.4 years, 56.6% women) and 114,560 reference individuals for 1,213,695 person-years (median: 7.7 years). The incidence of osteoporosis per 1,000 person-years was 8.70 (95%CI:8.28-9.14) among patients and 7.90 (95%CI:7.73-8.07) among reference individuals, resulting in a hazard rate ratio (HRR) of 1.14 (95%CI:1.08-1.20). Patients with bipolar disorder treated with lithium had a reduced risk of osteoporosis (HRR=0.62; 95%CI:0.53-0.72) compared to patients not receiving lithium. Conversely, treatment with antipsychotics, valproate and lamotrigine was not associated with reduced risk of osteoporosis.

**Conclusions:** This is the first longitudinal study to show that treatment with lithium is associated with reduced risk of osteoporosis.

## Use of chlorprothixene and the risk of diabetes and major adverse cardiovascular events: a nation-wide cohort study

Mikkel Højlund, MD<sup>1,2</sup>; Christina Blanner Wagner, MD PhD<sup>3</sup>; Rikke Wesselhoeft, MD PhD<sup>1,4</sup>; Kjeld Andersen MD PhD<sup>5,6</sup>; Anders Fink-Jensen, MD DMSc<sup>7,8</sup>; Jesper Hallas, MD DMSc<sup>1</sup>

- 1) Clinical Pharmacology, Pharmacy, and Environmental medicine, Department of Public Health, University of Southern Denmark, Odense, Denmark.
- 2) Department of Psychiatry Aabenraa, Mental Health Services in the Region of Southern Denmark, Aabenraa, Denmark.
- 3) Psychiatric Centre Glostrup, Mental Health Services in the Capital Region of Denmark, Copenhagen, Denmark.
- 4) Child and Adolescent Mental Health Odense, Mental Health Services in the Region of Southern Denmark, Odense, Denmark.
- 5) Department of Psychiatry Odense – University Clinic, Mental Health Services in the Region of Southern Denmark, Odense, Denmark.
- 6) Research Unit of Psychiatry, Department of Clinical Medicine, University of Southern Denmark, Odense, Denmark.
- 7) Psychiatric Centre Copenhagen, Mental Health Services in the Capital Region of Denmark, Copenhagen, Denmark.
- 8) Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark.

**Objective:** Chlorprothixene is commonly used off-label in low doses for sedative-hypnotic purposes although it might carry a risk of cardiometabolic adverse events due to its pharmacological profile. We investigated the risk of diabetes and major adverse cardiovascular events (MACE) with use of low-dose chlorprothixene, compared to use of low-dose quetiapine.

**Methods:** Nation-wide cohort study, including all new users of chlorprothixene(n=81,328) and low-dose quetiapine(n=91,163) in Denmark 2000-2017. Main outcomes were diabetes and MACE (myocardial infarction, stroke, death from cardiovascular causes). Hazard ratios(HRs) with 95% confidence intervals(95%CIs) were estimated using Cox regression models in high-dimensional propensity-score matched cohorts using intention-to-treat(ITT) and as-treated(AT) approaches to follow-up. An additional case-control analysis calculated odds ratios (ORs) for the association between different cumulative doses of chlorprothixene and the outcomes.

**Results:** Low-dose chlorprothixene use was associated with increased risk of diabetes (ITT-HR: 1.16; 95%CI: 1.08-1.25), compared to low-dose quetiapine use. This association strengthened when restricting follow-up to time on treatment (AT-HR: 1.34; 95%CI: 1.14-1.56) and with a clear difference from low-dose quetiapine evident beyond 3 years of continuous treatment. Low-dose chlorprothixene use was also associated with increased risk of MACE (ITT-HR: 1.12; 95%CI: 1.04-1.21), and stroke (ITT-HR: 1.21; 95%CI: 1.06-1.37), but not with myocardial infarction (ITT-HR:1.11;95%CI:0.95-1.30) or death from cardiovascular causes (ITT-HR: 1.07; 95%CI: 0.96-1.20). These associations were not seen in AT-analyses. Cumulative dose of chlorprothixene  $\geq$ 6000mg was associated with increased risk of diabetes (OR:1.20-1.58; test for trend: p<0.001), whereas cumulative dose of chlorprothixene  $\geq$ 1500mg was associated with increased risk of MACE (OR: 1.16-1.96; test for trend: p<0.001).

**Conclusions:** Low-dose chlorprothixene use is associated with increased risk of cardiometabolic adverse events compared to low-dose quetiapine use.

## Antipsychotics, associated diagnoses and health care utilization in Denmark 2018

Mikkel Højlund<sup>1,2</sup>, Jacob H. Andersen<sup>1</sup>, Kjeld Andersen<sup>3,4</sup>, Christoph U. Correll<sup>5,6</sup>, Jesper Hallas<sup>1</sup>

- 1) Department of Public Health, Clinical Pharmacology and Pharmacy, University of Southern Denmark, Odense, Denmark
- 2) Mental Health Services Region of Southern Denmark, Department of Psychiatry Aabenraa, Aabenraa, Denmark
- 3) Department of Clinical Medicine, Psychiatry, University of Southern Denmark, Odense, Denmark
- 4) Mental Health Services Region of Southern Denmark, Department of Psychiatry Odense, Odense, Denmark
- 5) The Zucker Hillside Hospital, Department of Psychiatry, Zucker School of Medicine at Hofstra/Northwell, New York, USA
- 6) Charité Universitätsmedizin, Department of Child and Adolescent Psychiatry, Berlin, Germany

**Background:** Prevalence of antipsychotic use has increased in Denmark over the past decade, and prior studies have found considerable use of antipsychotics in non-psychotic conditions. This development could be driven by antipsychotics being used for their sedative-hypnotic properties, or because of use in other medical conditions (e.g. movement disorders), or in palliative care. Our objective is to investigate diagnoses associated with antipsychotic use, and furthermore to characterize antipsychotic users without relevant diagnoses.

**Methods:** We linked data on antipsychotic prescriptions in 2018 from the Danish National Prescription Register with data from the National Patient Register and the National Health Insurance Service Register. Users were grouped according to indications based on ICD-10 diagnoses: i) Severe mental illness (F20,22-29,30-31), ii) other mental illness (other F-diagnoses), iii) neurological diagnoses (G-diagnoses), or iv) cancer diagnoses (C-diagnoses). Users without the aforementioned diagnoses were assessed regarding demographics, specific antipsychotics, concurrent psychotropic drug use, and health care utilization.

**Results:** Of 127.632 individuals, who redeemed an antipsychotic drug in 2018, 12% had a diagnosis of severe mental illness, 20% had other mental disorders, 4% had only neurological disorders, and 3% had only cancer diagnoses. The remaining 79.032 individuals (62%) had no psychiatric, neurological or cancer diagnosis. This group was most likely to use quetiapine (50%), olanzapine (11%), or risperidone (11%). They would redeem either one prescription (21%) or more than five prescriptions (41%) of antipsychotics, and concurrent use of antidepressants was common (46%). Among incident users without relevant diagnoses in 2018 (n=18.922), only 15% had been in contact with a practicing psychiatrist.

**Conclusions:** Most antipsychotic users in Denmark does not have recorded diagnoses of psychotic disorders, and more than half of antipsychotic users have no psychiatric, neurological or cancer diagnosis. Health care data indicates that a considerable proportion of antipsychotics are prescribed in general practice.

## Salivary Cortisol Awakening Response as Predictor for Depression Severity

Else Refsgaard<sup>1</sup>, Anne Vibeke Schmedes<sup>2</sup>, Klaus Martiny<sup>3</sup>

1) Psychiatric Research Unit, Mental Health Centre North Zealand, Denmark

2) Department of Biochemistry and Immunology, Lillebaelt Hospital, Vejle, Denmark

3) New Interventions in Depression (NID) Group, Copenhagen Affective Disorder research Center (CADIC), Mental Health Centre Copenhagen, Rigshospitalet, University of Copenhagen

**Introduction:** The hypothalamic-pituitary-adrenal axis function in depression has for decades been investigated with a variety of methods. We investigated associations between the saliva cortisol awakening response (CAR) with endpoint depression scores and the baseline 24-h urine cortisol output with concurrent CAR measures.

**Objectives:** To test any association between CAR measures and endpoint depression scores and between 24-h urine cortisol output and CAR measures.

**Methods:** Patients with a major depressive episode treated with duloxetine, delivered saliva samples at awakening and 15, 30, and 60 min post-awakening, and sampled urine for 24 hours. Patients afterwards started a daily exercise program maintained for the 9-week period. Clinician-rated depression severity was weekly assessed with the Hamilton Depression Rating 6-item subscale (HAM-D6). From the cortisol awakening response the area under the curve was calculated with respect to the ground ( $AUC_G$ ) and with respect to the rise ( $AUC_I$ ) using saliva cortisol levels in a 1-h period after awakening. Associations between depression severity,  $AUC_G$ ,  $AUC_I$ , exercise, and 24-h cortisol output was performed in a general linear model.

**Results:** The mean age of the 35 participants was 49.0 years (11.0) and with a mean baseline HAM-D6 score of 12.2 (2.3). In the statistical model investigating the association between HAM-D6 at week 9 as a dependent variable and  $AUC_I$ , concurrent HAM-D6, gender, smoking, and exercise volume as covariates, we found a significant effect of  $AUC_I$ , concurrent HAM-D6, and exercise. The following statistics were found:  $AUC_I$  (regression coefficient 0.008; F value = 9.1; p = 0.007), concurrent HAM-D6 (regression coefficient 0.70; F value = 8.0; p = 0.01), and exercise (regression coefficient -0.005; F value = 5.7; p = 0.03). The model had an  $R^2$  of 0.43. This association between HAM-D6 endpoint scores and the  $AUC_I$  showed that higher  $AUC_I$  values predicted higher HAM-D6 endpoint values. The association between HAM-D6 endpoint scores and the exercise level showed that a high exercise level was associated with lower HAM-D6 endpoint values.

**Perspective:** This is a little step towards finding easy-to-implement methods to predict depression outcome and thus, being able to allocate more resources to those patients that is predicted to have a less favorable outcome.

## Clinical validation of the Aarhus Side effect Assessment Questionnaire (ASAQ)

Pernille Kølbæk<sup>1,2,3</sup>, Mette Viller Thorgaard<sup>2,3</sup>, Amalie Schnegelsberg Grooss<sup>3</sup>, Thusitha Selvanathan<sup>3</sup>, Sofie Fly Larsen<sup>3</sup>, Maria Speed<sup>2,3</sup>, David Dines<sup>1</sup>, Søren Dinesen Østergaard<sup>1,2,3</sup>

1) Psychosis Research Unit, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

2) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

3) Department of Affective Disorders, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

**Background:** Psychotropic medications are essential in the treatment of mental illness. Unfortunately, these medications are associated with side effects that may reduce adherence to treatment and quality of life. Therefore, systematic screening for side effects is fundamental to optimize treatment with psychotropic medications. Self-report of side effects is a practical alternative to time-consuming clinical assessments. We developed the Aarhus Side effect Assessment Questionnaire (ASAQ) in an attempt to strike the balance between extensive coverage of side effects and reasonable application time.

**Aims:** To validate the ASAQ using the clinician-rated Udvalg for Kliniske Undersøgelser (UKU) side effect scale as gold standard reference.

**Methods:** A total of 122 inpatients and outpatients – mainly with psychotic (39%) and affective disorders (43%) – receiving treatment with psychotropic medication completed the ASAQ and the WHO-Five Well-Being Index (WHO-5), and were subsequently rated on the UKU by trained raters.

**Results:** Using the UKU as the gold standard reference, the ASAQ demonstrated sensitivity values >75% for 77% of its 30 items (ranging from 37% for cutaneous disturbances to 98% for increased sweating) and specificity values >75% for 47% of its 30 items (ranging from 28% for reduced sleep to 98% for micturition disturbances). While 17% of the participants considered discontinuing their medication, 24% had recently refrained from taking their medication as prescribed. A negative correlation was found between the ASAQ and the WHO-5 and total scores (Pearson's correlation coefficient: -0.44).

**Conclusions:** The self-reported ASAQ seems to be a sensitive tool for detecting side effects of psychotropic medications.

## Precision medicine in the treatment of first episode depression – establishing the BrainDrugs-Depression cohort

Kristian H. Reveles Jensen<sup>1,2,5</sup>, Vibeke Høyrup Dam<sup>1</sup>, Melanie Ganz<sup>1,3</sup>, Patrick MacDonald Fisher<sup>1</sup>, Merete Osler<sup>4,5</sup>, Vibe Gedø Frokjaer<sup>1,2,5</sup>, Gitte Moos Knudsen<sup>1,5</sup>, Martin Balslev Jørgensen<sup>1,2,5</sup>

- 1) Neurobiology Research Unit and BrainDrugs, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark
- 2) Psychiatric Centre Copenhagen, Copenhagen, Denmark
- 3) Department of Computer Science, University of Copenhagen, Copenhagen, Denmark
- 4) Center for Clinical Research and Prevention, Bispebjerg & Frederiksberg Hospital, Denmark
- 5) Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

**Background:** There is growing evidence that Major Depressive Disorder (MDD) describes not just one but several subtypes of brain disorders, each with potentially different psychological and biological causes and disease mechanisms. Possibly, why a third of patients do not respond to treatment with first- or second-line antidepressants. We have established BrainDrugs-D, a real-world clinical cohort study using a combination of possible predictive markers across several domains, e.g., demographic, psychometric, blood, and neuroimaging modalities in subgroups, to examine MDD subtypes and predict treatment response.

**Method:** The study consists of three groups:

The entire cohort (n=1200) will contribute with basic clinical, cognitive, psychometric, and biological data. A Neuroimaging subgroup (n=800) will contribute with expanded clinical, cognitive, and psychometric data, and Magnetic Resonance Imaging and Electroencephalogram data.

A subgroup (n=100) of the Neuroimaging subgroup will be exclusively for patients unmedicated at initiation and also contribute with Positron Emission Tomography imaging of synaptic density.

The primary outcome is remission after the treatment package, defined as a Quick Inventory of Depressive Symptomatology (QIDS) score <6. Secondary endpoints include remission 12 and 18 months after treatment start and changes in QIDS, SCL10, WHO-5, and SDS from baseline to follow-ups. We also assess side-effects of psychological treatment and medication.

We will use machine learning to determine a combination of characteristics that best predict treatment outcomes and statistical models to investigate the association between individual measures and clinical outcomes. We will also assess associations between patient characteristics, treatment choices, and clinical outcomes using path analysis, enabling us to estimate the effect of treatment choices and timing on the clinical outcome.

**Conclusion:** The BrainDrugs-D study uses multimodal neuroimaging combined with self-report, clinical, and molecular markers to identify clinically relevant predictors that can reliably identify MDD subtypes and predict treatment response to standard treatment with psychotherapy and medication.

# 31

## Relapse prediction during tapered antipsychotic discontinuation

Sofie Norlin Mølgaard, Mette Ødegaard Nielsen, og Jimmi Nielsen

Enhed for kompliceret skizofreni, Psykiatrisk Center Glostrup, Region Hovedstaden Psykiatri

**Introduction:** It has been established that patients with schizophrenia may have a distinctive molecular signature in serum compared to healthy control that may be used to predict symptom improvement and time to relapse. We aim to identify predictive biomarkers of symptom relapse in order to identify patients for whom further dose reduction cannot be recommended.

**Method:** Individuals following the specialized treatment program with gradual tapering of antipsychotics for patients with schizophrenia, will be offered participation in the study. Blood samples will be drawn monthly, along with a thorough clinical assessment including symptom level and function. Based on this information we segregate the patients in 3 groups:

Group A: No worsening in PANSS score. This group will follow the schedule for tapering the antipsychotic treatment for one year.

Group B: Patient and/or therapist want to pause the discontinuation, without obvious worsening in psychotic symptoms. The monitoring will be intensified.

Group C: Significant deterioration in the patient's condition indicating relapse.

In group C, the patient will be considered as relapsed, which will lead to adjustment of medication, and intensified follow-up until stabilization is achieved. Blood samples and ECG will be collected weekly for four weeks, and thereafter monthly, for two months. The blood samples include lipids, leptin, sugar, cytokines and standard inflammatory parameters.

**Results:** We expect recruitment of patients to start in February 2022

Hypotheses: 1) Approximately 50% of the included patients will experience significant clinical relapse during antipsychotic medication tapering. 2) In this group of patients, a change in specific markers will be seen in the last blood sample before relapse. 3) These markers will remain altered during the period of destabilization, but will normalize as symptoms improve and condition stabilizes.

## Biomarkers in Treatment Resistant Patients with Psychotic disorder: A Study of Brain, Blood and Cerebrospinal Fluid

Inderjeet Kaur Dhillon<sup>1</sup>, Kirsten Borup Bojesen<sup>2</sup>, Mark Bitsch Vestergaard<sup>3</sup>, Jimmi Nielsen<sup>1</sup>, Mette Ødegaard Nielsen<sup>1,2</sup>

1) Enhed for kompliceret skizofreni, University of Copenhagen, Psychiatric Unit Glostrup, Glostrup

2) Center for Neuropsykiatrisk Skizofreni Forskning (CNSR), University of Copenhagen, Psychiatric Unit Glostrup, Glostrup

3) Functional Imaging Unit, MR-department, University of Copenhagen, Glostrup Hospital

**Background:** Antipsychotic medication with dopamine antagonistic properties is the most widely used treatment in schizophrenia. However, up to 30% of patients don't recover despite treatment, and are defined as treatment resistant (TRS). In this group of TRS approximately 70% don't respond to treatment with Clozapine and are defined as ultra-treatment resistant (UTRS). Thus, there is a need for novel therapeutics for UTRS, but development is hampered by insufficient knowledge of the brain disturbances. Recent evidence points towards changes in the glutamatergic and GABAergic system, white matter lesions, as well as changes in inflammatory biomarkers and the blood brain barrier. Hence, in this study we aim to test the following hypotheses:

- TRS and UTRS will show altered levels of glutamate in anterior cingulate cortex (ACC) and thalamus compared to first-line responders (FLR)
- TRS will show more normalized levels of GABA and glutamate in ACC compared to UTRS
- UTRS will have increased levels of inflammatory markers, increased permeability of the blood brain barrier and more pronounced white matter alterations

**Methods:** Cross-sectional study of 135 patients with schizophrenia or non-organic, chronic psychosis and aged between 18-64 years. Patients divides into three subcategories according to treatment response: 45 FLR stable on first-line medication, 45 TRS stable on Clozapine, and 45 UTRS. TRS is defined by TRIPP-guidelines. Brain markers are evaluated with MRI. Permeability of the blood-brain-barrier and inflammatory markers are evaluated with cerebrospinal fluid and blood samples. Psychopathology and level of function are assessed with clinical rating scales.

**Results:** The study is currently recruiting patients and has enrolled 10 patients so far.

**Conclusion:** We expect the multimodal data in the three subgroups of patients will contribute with significant insight into the pathophysiological processes underlying treatment resistance in schizophrenia. Further knowledge about these putative biomarkers will subsequently allow to stratify patients and develop novel therapeutics.

---

# 33

## Stability of diagnostic labelling of psychiatric outpatient visits: An investigation into the transition from the second (LPR2) to the third (LPR3) version of Landspatientregistret

Martin Bernstorff<sup>1,2</sup>, Lasse Hansen<sup>1,2</sup>, Erik Perfall<sup>1,2</sup>, Andreas Aalkjær Danielsen<sup>1,2</sup>, Søren Dinesen Østergaard<sup>1,2</sup>

1) Department of Affective Disorders, Aarhus University Hospital – Psychiatry, Aarhus, Denmark

2) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

**Background:** In Denmark, data on hospital contacts are reported to Landspatientregistret (LPR). One of the most frequently used LPR parameters in psychiatric research is the main diagnosis (aktionsdiagnosen), which describes the most important (mental) disorder currently being treated. With the transition from the LPR2 (the second version of LPR) to LPR3 (the third version of the LPR) on the 15<sup>th</sup> of February 2019, the way main diagnoses were labelled in relation to outpatient visits changed substantially. Specifically, under the LPR2 paradigm, a connected series of outpatient visits were ultimately coded with only one main diagnosis, representative of this entire treatment course. With the advent of LPR3, coding regulation was updated. Since then, every single outpatient visit has been labelled with a main diagnosis to cover that specific visit only. This means that the main diagnosis in the LPR is based on the limited diagnostic information available at the time of each visit, rather than the complete information available at the end of the treatment course. This change in practice may have caused a destabilization of diagnostic labelling that poses a threat to the many research activities that rely on the main diagnoses as either exposure or outcome. Therefore, we aimed to clarify whether such a destabilization has indeed occurred.

**Methods:** Electronic health record data for all psychiatric hospital outpatient visits in the Central Denmark Region from the advent of MidtEPJ (2011) to the present day will be examined. Descriptive statistics and change-point-detection will be applied to determine whether the transition from LPR2 to LPR3 has led to changes in the diagnostic distribution.

**Discussion:** Data-analysis is ongoing. The initial results are promising with regard to diagnostic stability across the transition from LPR2 to LPR3. The final results will be shown at the poster session.

## 34

### Does a Ketogenic Dietary Supplement Reduce Alcohol Withdrawal Symptoms in Humans?

Marco Møller<sup>1</sup>, Laura Jensen<sup>1</sup>, Thomas Fahmy<sup>2</sup>, Morgane Thomsen<sup>1</sup>, Ulrik Becker<sup>3</sup>, Helene Benveniste<sup>4</sup>, Nora Volkow<sup>5</sup>, Gitte Moos Knudsen<sup>6</sup>, Graeme Mason<sup>7</sup>, Anders Fink-Jensen<sup>1,8</sup>

1) Psychiatric Centre Copenhagen, University Hospital of Copenhagen, Copenhagen, Denmark.

2) Addiktiv Klinik, Lyngby, Denmark.

3) Department of Population Health and Morbidity, University of Southern Denmark

4) Department of Anesthesiology, Yale University, New Haven, CT, USA

5) National Institute on Alcohol Abuse and Alcoholism, Bethesda, USA

6) Neurological Research Unit, Rigshospitalet, Denmark

7) Radiology & Biomedical Imaging, Yale University, New Haven, CT, USA

8) Department of Clinical Medicine, University of Copenhagen, Denmark

**Background:** Brain imaging studies have found that heavy alcohol intake in patients with alcohol use disorder (AUD) leads to a shift in brain metabolism from glucose to acetate, a metabolite of alcohol. Thus, when alcohol intake ceases, the brain is in a paradoxical energy-deprived state due to lack of available acetate. Ketone bodies are similar to acetate and the ketogenic diet is known to be effective in children with drug-resistant epilepsy. Preclinical evidence suggests that ketosis is a relevant strategy for managing alcohol withdrawal syndrome and recently a clinical trial found effects using a ketogenic diet, substantiating this hypothesis even further, but the diet requires several days of adherence before reaching ketosis. With a ketogenic dietary supplement ketosis can be reached within hours.

**Aims:** We propose a randomized clinical trial evaluating effects of a ketogenic dietary supplement on patients undergoing treatment for alcohol withdrawal syndrome.

**Methods:** In a double-blinded, randomized, placebo-controlled clinical trial, we are investigating if three days of treatment with a dietary supplement of a ketone mono ester beverage, i.e. five doses of 25 g beta-hydroxybutyrate (BHB) each day, reduces benzodiazepine use in patients (N=36) diagnosed with AUD in treatment for alcohol withdrawal syndrome. The intervention is a supplement to standardized out-patient alcohol withdrawal treatment. Patients are recruited from AUD out-patient clinics in the Capital Region of Denmark. After patients are scheduled for withdrawal treatment, blinded study personnel will perform screening. If included, patients will initiate the trial simultaneously as regular withdrawal treatment. Primary exclusion criteria are heavy psychiatric or somatic comorbidity, recent use or addiction of benzodiazepines and current treatment with disulfiram. During participation, daily study visits are performed, followed by a final day visit and follow-up sessions one month and one year after participation. The primary endpoint is the quantity of benzodiazepines used. Secondary endpoints include the effect on withdrawal symptoms, alcohol craving and assessments of anxiety, sleep and mood status by use of CIWAR-AR, DAQ, MDI and VAS questionnaires. Furthermore, following withdrawal treatment and one month after, we use Magnetic Resonance Spectroscopy (MRS) in patients (N=12) to estimate brain concentrations of BHB, GABA and glutamate. We compare with MRS data from healthy volunteers with different alcohol intake, i.e. light drinkers (N=12), heavy drinkers (N=12), and alcohol abstinent people previously fulfilling criteria of AUD (N=12).

**Conclusion:** To our knowledge our study will be the first clinical trial to investigate effects of a ketogenic dietary supplement on alcohol withdrawal symptoms in patients diagnosed with AUD. Currently, 26/36 participants have completed the trial and 9/12 patients and 26/36 healthy volunteers have completed MRS measurements. We expect to conclude recruitment by 31.03.2022.

# 35

## Effect of Semaglutide versus placebo on psychotic symptoms and quality of life - a pre-specified secondary analysis of HISTORI: A randomized clinical trial in people with pre-diabetes and schizophrenia

N. Uhrenholt<sup>1</sup>, A. Ganeshalingam<sup>2</sup>, S. Arnfred<sup>1</sup>, J. Frystyk<sup>2</sup>, P. Gæde<sup>3</sup>, N. Bilenberg<sup>4</sup>

- 1) Psychiatry West, Region Zealand, Research Unit for Psychotherapy and Psychopathology, Slagelse, Denmark.
- 2) Odense University Hospital., Department of Endocrinology M / Steno Diabetes Centre Odense (SDCO), Odense, Denmark.
- 3) Næstved, Slagelse og Ringsted Hospital, Department of cardiology and endocrinology, Slagelse, Denmark.
- 4) Mental Health Services in the Region of Southern Denmark, Child and Adolescent Psychiatry Odense, Odense C, Denmark.

**Introduction:** Life expectancy of people with schizophrenia is reduced by 10-20 years compared to the general population. The excess mortality is due to an increased prevalence of cardiovascular disease, diabetes and obesity, which are in part due to the antipsychotic treatment. Gaining weight or being obese is associated with reduced quality of life. Weight gain and metabolic syndrome are among the most frequently reported reasons for the discontinuation of antipsychotic treatment. Lifestyle changes have a time limited effect regarding obesity, therefore, interest has focused on Glucagon-Like Peptide 1 receptor agonist treatment. Among this group of drugs, Semaglutide currently used to treat type 2-diabetes in doses up to 1.0 mg once weekly, has shown promising results regarding weight loss.

**Objectives:** The HISTORI trial aims to reduce risk of developing diabetes and cardiovascular disease in people with schizophrenia, prediabetes and overweight. This pre-specified secondary analysis of the HISTORI trial aims to investigate for an indirect effect of Semaglutide on psychotic symptoms and quality of life through weight loss and improved medication adherence.

**Methods:** A 30 weeks randomized, multicenter, placebo-controlled, double-blinded study with weekly injections of Semaglutide. Primary inclusion criteria: age 18-40 years, schizophrenia, pre-diabetes, overweight and treatment with antipsychotics. Questionnaires and interviews regarding psychotic symptoms, quality of life, medication adherence, general wellbeing and physical activity will be applied either monthly or every third month.

**Organization:** The trial is initiated from Odense University Hospital/SDCO and recruits participants from community psychiatry in Region of Southern Denmark and Region Zealand.

**Results:** Results will not be ready for the congress. A poster outlining the design and the feasibility challenges will be presented.

**Perspective:** Semaglutide may indirectly be able to improve quality of life and medication adherence through weight loss. If medication adherence is improved, so might be the severity of the psychotic symptoms measured by PANSS-6.

## Standardized training in rating of the Yale-Brown obsessive compulsive scale

Pernille Kølbæk<sup>1,2</sup>, Mikkel Arendt<sup>2</sup>, Anita Eskildsen<sup>2</sup>, Per Hove Thomsen<sup>1,3</sup>, Judith Becker Nissen<sup>3</sup>, Søren Dinesen Østergaard<sup>1,2</sup>

1) Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

2) Department of Affective Disorders, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

3) Department of Child and Adolescent Psychiatry, Aarhus University Hospital—Psychiatry, Aarhus, Denmark

**Introduction:** The Yale-Brown obsessive compulsive scale (Y-BOCS) enables brief assessment of the severity of core symptoms of obsessive compulsive disorder among adults and children/adolescents (CY-BOCS). Utilizing such standardized assessments likely offers significant advantages to clinical decision-making by facilitating recognition and monitoring of symptoms and response to treatment. Implementation of the Y-BOCS/CY-BOCS, however, requires that clinical staff rate reliably and accurately. Therefore, we are planning a study to address the following research question: Can video-based training promote reliable and valid staff ratings on the Y-BOCS/CY-BOCS?

**Methods:** One-hundred staff members from child/adolescent and adult psychiatric departments in the Central Denmark Region will be recruited to participate in a video-based training program. First, participants will complete a pre-training questionnaire regarding demographics, clinical experience, self-perceived rating level, and attitudes towards the use of rating scales in clinical practice and video-based training. Second, participants will make independent ratings of a baseline patient video-interview before viewing a video providing and explaining gold-standard ratings. Third, participants will watch a 45-minute theoretical introduction to the psychopathology, rating principles, and interview technique of Y-BOCS/CY-BOCS. Fourth, participants will make independent ratings of five patient videos (displayed in random order between participant subgroups) before viewing videos providing and explaining gold-standard ratings. Finally, in a post-training questionnaire, participants will rate their self-perceived competence in conducting the Y-BOCS/CY-BOCS and attitude towards the use of rating scales in clinical practice.

**Suggested discussion points:**

- i) Data from pre- and post-training questionnaires
- ii) Content of theoretical introduction
- iii) Study procedure
- iv) Use of Y-BOCS/CY-BOCS in clinical practice

**Perspectives:** Training in common measures across child/adolescent and adult populations is likely to improve clinicians' assessment skills, communication and coordination between services, and thus person-centered treatment and continuity of care in the challenging transition from adolescent to adult psychiatric services.

## Gut Emotions: MICROBIOTA MODULATION AND EFFECTS ON FATIGUE, DISTRESS AND NEGATIVE AFFECTIVITY IN PSYCHIATRIC PATIENTS: EXPLORATORY STUDY OF MEDIATORS

Ragnar Klein Olsen<sup>1</sup>, Sidse Arnfred<sup>1</sup>, Natalia Pedersen<sup>2</sup>, Henrik Vedel Nielsen<sup>3</sup>.

1) Forskningsenhed for psykoterapi og psykopatologi, Psykiatrien i Region Sjælland

2) Mavetarmmedicinsk afdeling, Næstved-Slagelse-Ringsted sygehus, Region Sjælland

3) Specialdiagnostik af Bakterier, Parasitter & Svampe, Statens Serum Institut

**BACKGROUND AND OBJECTIVES:** Accumulating evidence indicate that the intestinal microbiota can affect mental health and behaviour via multiple pathways. Intestinal dysbiosis have been shown to trigger increased pro-inflammatory signalling and inflammation has been associated with depression and depressed behaviour. Studies suggests a bidirectional association between depression, inflammation, distress and the intestinal microbiome. Fatigue can be quantified/measured and is present in mental disorders and is found in patients with depression. Nutritional interventions have shown, at least partly, promising health benefits, is cost-efficient and practical for people with mental illness. A diet supplemented with inulin have proven capable of modulating the intestinal microbiota and thereby shifts the faecal Short Chain Fatty Acid (SCFA) profile. This raises the question: Do inulin induced changes in the intestinal microbiota bring measurable alterations of mental health?

**METHODS:** Single Case Experimental Design (SCED). A small-n trial with multiple longitudinal measurements of different psychometric measures, blood and stool samples and investigating of microbiota modifications. Participants: Female patients aged 18-35 years old diagnosed with anxiety, depression and cluster C personality disorder, who are recruited from a psychiatric outpatient clinic. Intervention: Dietary fibres (Inulin) supplementation. Measures: Variable study phases, randomized per participant, ranging from 4-8 weeks per study phase, collected daily measures of fatigue (PROMIS-6-item) and frequent collection of other psychometric measures (PROMIS-anxiety & depression, PANAS, HamD6, HamA6, K10, PID-5, IBS-SSS), blood samples for inflammation and stool samples for calprotectin and microbiome analysis, including *in silico* predicted metabolites produced by the microbiota.

**ORGANISATION:** The study is carried out at Psychiatric Clinic, Psychiatry West, Mental Health Region Zealand, in collaboration with Department of Gastroenterology, Næstved-Slagelse-Ringsted Hospital, Department of Clinical Biochemistry, Næstved-Slagelse-Ringsted Hospital and Statens Serum Institut.

## Udredning som en fælles indsats

Oliver Rumle Hovmand<sup>1,2</sup>, Nina Reinholt<sup>1</sup>, Kirstine Dichmann<sup>1,2,3</sup>, Radoslav Borisov<sup>4</sup>,  
Sidse Arnfred<sup>1,2</sup>

1) Research Unit for Psychotherapy and Psychopathology, Psychiatry West, Region Zealand

2) Department of Clinical Medicine, Faculty of Health, University of Copenhagen

3) Forensic Psychiatry, Region Zealand Mental Health Service

4) Outpatient Clinic Maribo Psychiatry South, Region Zealand Mental Health Service

**Baggrund:** Der er stort frafald fra gruppepsykoterapi, og sparsomt med viden om hvordan klarhed til psykoterapi øges. Der findes dog spirende evidens for at udredning foretaget i samarbejde med patienten, hvor den psykologiske testning anvendes som en aktiv intervention, kan have en positiv effekt på klarhed til psykoterapi samt symptomatologi.

**Metode:** 42 patienter med en klinisk diagnose med social angst eller Ængstelig-evasiv PF, der står på venteliste til psykoterapi i gruppe i de psykiatriske klinikker i Psykiatrien Syd, rekrutteres til projektet. De randomiseres 1:1 til enten at forblive på venteliste som kontrolgruppe, eller til at modtage MCA (Modified Collaborative Assessment) som en forbehandling. I MCA formulerer de såkaldt terapeutisk spørgsmål, som er et spørgsmål omkring dem selv, de ønsker at blive klogere på. Disse spørgsmål vil MCA-terapeuten i samarbejde med patienten forsøge at svare på, ved hjælp af et batteri af standardiserede psykologiske tests. Dette batteri indeholder en række psykopatologiske test (PSE, ADOS, SCID, EASE, WAIS, SCIP, DIVA og Connor's), der kan belyse og detektere psykopatologi på en systematisk måde. Testningen vil blive fuldt op af ekstensiv mundtlig og skriftlig feedback. Efterfølgende vil begge grupper modtage den vanlige psykoterapi i gruppe, og der vil blive målt på outcomes relateret til psykopatologi, klarhed til psykoterapi samt fremmøde til psykoterapi.

**Diskussion:** MCA vil muligvis kunne øge klarhed til psykoterapi og reducere frafald fra psykoterapi.

## 39

### Effekten af en klinisk farmakologisk gennemgang på behandlingen af patienter med samtidig diabetes og skizofreni: FARMA-EKSPERT-KONS Add-IN

Christensen JFMM<sup>1,2</sup>, Gesche J<sup>1,2,3</sup>, Arnfred S<sup>1,3</sup>, Düring SW<sup>1,3</sup>

1) Forskningsenheden for Psykoterapi og Psykopatologi Slagelse psykiatrien vest.

2) Klinisk Farmakologisk Enhed Roskilde Sygehus region Sjælland.

3) Institut for Klinisk Medicin, SUND, Københavns Universitet

**Baggrund:** Psykisk sygdom er forbundet med en øget risiko for diabetes og forekommer to til tre gange hyppigere hos patienter med skizofreni og bipolar lidelse end i baggrundsbefolkningen. Dette leder ofte til polyfarmaci med risiko for lægemiddelbivirkninger og lægemiddelinteraktioner. Vi ønsker at undersøge hvordan en klinisk farmakologisk medicengennemgang, ved en speciallæge i klinisk farmakologi, kan understøtte behandlingen af patienter med både diabetes og skizofreni.

**Metoder:** Patienterne rekrutteres fra "Fusionsklinikken" i Slagelse som er et tværfagligt samarbejde mellem psykiatere og endokrinologer rettet mod patienter med samtidig diabetes og psykisk sygdom. Der tilstræbes at rekruttere ca. 50 patienter som randomiseres i blokke af 6 til en interventionsgruppe (+ klinisk farmakologisk gennemgang) eller en kontrolgruppe. Studiet er designet som et prospektivt studie, hvor patienterne ses ved baseline og 6 måneder efter til follow up. Ved begge besøg indsamles oplysninger om medicinering samt brede helbredsoplysninger. Der udføres desuden PANSS-6, CGI, UKU og deltagerne udfylder SF-12 og MARS. Da en klinisk farmakologisk gennemgang beror på journaloplysninger er investigator blindet. Der suppleres med semistrukturerede fokusgruppe interviews af behandlingspersonalet mhp. identificere hindringer for implementeringen af interventionen.

**Resultater:** Vi forventer følgende effekt af interventionen:

1: farmakologisk effektmål. Nedbringelse af medicinload , lægemiddelinteraktioner, lægemiddelbivirkninger samt øget medicinadherence.

2: Objektive og subjektive effektmål: Reduceret PANSS-6 score og positiv effekt på SF-12 og CGI.

3: Finansielle effektmål: Reduktion af medicinudgifter og færre indlæggelsesdage.

4: Biokemiske effektmål: Bedring af metaboliske parametre.

**Status på projektet:** Inklusion påbegyndes per 1/2-22 og dataindsamling forventes afsluttet i 2. halvdel af 2022.

## Optimizing a dynamic lighting system in New Psychiatry Bispebjerg

Carlo Volf<sup>1</sup>, Paul Michael Petersen<sup>2</sup>, Torben Skov Hansen<sup>3</sup>, Klaus Martiny<sup>1</sup>

- 1) New Interventions in Depression (NID) Group, Copenhagen Affective Disorder research Center (CADIC), Mental Health Centre Copenhagen, Rigshospitalet, University of Copenhagen
- 2) Department of Photonics Engineering, Technical University of Denmark
- 3) Chromaviso A/S

**Introduction:** Light dosed with of adequate intensity and temporal timing has been shown to have a positive therapeutic effect in treatment of both seasonal and non-seasonal depression. Light typically has been delivered for shorter periods in the morning, through as lightbox with a fixed intensity and spectral distribution. The development of the Light Emitting Diode (LED) technology though, has made it possible to replace standard electrical room-lighting with dynamic LED systems that can change light intensity and spectral distribution throughout the 24-hour day to impact circadian rhythms, sleep and mood. LED's have markedly lower energy consumption. Therefore, many new buildings have LED systems, often with a dynamic controlled lighting. However, research into the settings of these dynamic LED systems are sparse, and no consensus has yet been reached. Therefore, we need to develop and test dynamic LED settings in buildings with different functions, when it comes to usability and specific effect measurements. In New Psychiatry Bispebjerg (NPB), we have been given the opportunity to develop and test a dynamic LED system, as part of the Mental Health service in the Capital region of Denmark.

**Objectives:** The aim of this study is to develop and test a novel dynamic LED setting in New Psychiatry Bispebjerg that can both reduce energy consumption and strengthen the circadian regulation, sleep and mood of patients in the psychiatric wards in the NPB.

**Methods:** Patient will be cluster randomized to either a part of the ward with standard dynamic lighting system, as provided by the contractors, or to a part of the ward with a novel, adjusted dynamic lighting system. The adjusted system will use a blue-enriched morning light with higher intensity in combination with low evening levels of blue-less lighting. A separate study will investigate the effect of optimizing patient rooms according to geographical placement in the building and to seasons to optimize lighting in all rooms of the building, and to compensate for differences caused by the geographical orientation.

**Perspective:** The results will qualify the use of dynamic LED lighting system in psychiatric hospitals and will also be able to qualify the general use of dynamic lighting systems in the built environment, together with a reduction in energy requirements. The New Psychiatry Bispebjerg is expected to be inaugurated late 2022. The study period is planned to end in the end of 2024.

## Opgørelse over KOMorbid angst hos patienter med Bipolar affektiv sindslidelse i remission

Rasmus Nejst Jensen, Psykiatrisk Center Nordsjælland

Mange patienter med bipolar affektiv sindslidelse (BP) har eller har haft symptomer på angst. Angsten er for nogle patienter begrænset til sygdomsfaser, typisk depressionerne ("angst og depression går hånd i hånd"), mens der hos andre er tale om en komorbid angstlidelse, som tillige er aktiv, når den bipolare lidelse er i remission. Det anslås, at omkring halvdelen af alle med BP udvikler en komorbid angstlidelse i løbet af deres liv, men omfanget er utilstrækkeligt belyst og veksler meget i de opgørelser som foreligger, og de bygger på vidt forskelligt grundlag: Mange opgørelser forholder sig ikke til, hvorvidt patienternes bipolare lidelse er i remission eller ej, nogle skelner ikke mellem bipolar lidelse type I og II og de involverede klinikere i undersøgelsene har vidt forskellig baggrund, fra f.eks. socialrådgiver eller sygeplejerske til læge eller speciallæge i psykiatri. Komorbid angstlidelse ved BP har store konsekvenser for prognosen, idet komorbid angst er associeret med flere sygdomsfaser, alvorligere depressive episoder og dobbelt så stor forekomst af stofmisbrug og selvmordsforsøg. Aktuelle studie er en opgørelse over komorbid angst hos patienter med bipolar lidelse i remission. Undersøgelsen er et pilotprojekt, som skal belyse omfanget af problemet for at skabe en øget opmærksomhed på denne sygdomskombination og dermed fremadrettet etablere en målrettet behandling. Vores undersøgelse vil inkludere 100 patienter med bipolar lidelse og forløbe på den måde, at de ved speciallæge i psykiatri vil blive vurderet i forhold til komorbid angstlidelse og kognitivt funktionsniveau i neutral fase. Undersøgelsen vil blive gentaget efter 1 og 2 år. Vores hypotese er, at såvel prævalensen som graden af komorbid angst ved BP er positivt korreleret med antallet af tidlige sygdomsfaser ((hypo)manier og depressioner).

## Biomarkers in Clozapine-respondent Schizophrenia (BICS)

Bahast Biuk<sup>1</sup>, Mette Ødegaard Nielsen<sup>1,2</sup>, Jimmi Nielsen<sup>1,2</sup>

1) Mental Health Centre Glostrup, Copenhagen University Hospital, Copenhagen, Denmark.  
2) Copenhagen University, Copenhagen Denmark.

**Background:** 1/3 of patients with schizophrenia do not have satisfactory effect with antipsychotic medication. Approximately 2/3 of this group will experience effect from treatment with clozapine while 1/3 does not, something that warrants further study. Research points towards an altered immunological response in schizophrenia. Studies have found antipsychotic medications to affect the immune system and alter cytokine levels, but no clear relation to treatment effect had been documented. Increased blood brain barrier (BBB) permeability has also been linked to schizophrenia. A dysfunctional BBB may lead to structural changes in the brain. These changes may be brought on by the altered immunological response. Clozapine has a unique mode of action, which is not known. Clozapine is highly immunologically active. With reference to immune abnormalities and dysfunctional BBB, this study aims at characterizing the immunological, morphological and therapeutically effects of clozapine.

**Method:** Longitudinal study over five years, aiming at including 200 patients with schizophrenia intended for treatment with clozapine. Patients are thoroughly examined over 12 weeks. In addition to standard procedure for clozapine treatment, examinations include:

- Lumbar-puncture, at baseline and endpoint, and blood-samples to measure BBB-permeability, assess immunological profiles and measure concentration of clozapine intrathecally.
- Magnetic Resonance Imaging targeting alterations in content of glutamate and GABA.
- Interviews using validated rating-scales.

The primary outcome is comparing changes in BBB-permeability with symptom burden. We hypothesize that clozapine response will show improved BBB function, improved immunological profile, and reduced alterations in the brain. It is expected that intrathecal clozapine concentration correlates with symptom reduction.

**Results:** The study is currently recruiting patients and has thus far included six patients.

**Conclusion:** The obtained results may elucidate the relation between altered BBB-permeability and treatment response. Furthermore, it is hoped that the immunological and antipsychotic effects of clozapine can be linked. Intrathecal concentrations of clozapine may aid dose optimization.

## 43

### Preventing relapse of depression through better recovery of patients when transferred to from psychiatry to primary care

Anne Sofie Aggestrup<sup>1</sup>, Maria Faurholt-Jepsen<sup>2</sup>, Trine Fredskild<sup>3</sup>, Annette Davidsen<sup>4</sup>, Klaus Martiny<sup>1</sup>

- 1) New Interventions in Depression (NID) Group, Copenhagen Affective Disorder research Center (CADIC), Mental Health Centre Copenhagen, Rigshospitalet
- 2) Copenhagen Affective Disorder research Center (CADIC), Mental Health Centre Copenhagen, Rigshospitalet
- 3) Head of Innovation and Digital Training, University Hospital Southern Denmark, The Learning and Research Centre
- 4) Research Unit for General Practice and Section of General Practice, University of Copenhagen

**Introduction:** Many patients with severe Major Depressive Disorder (MDD) will have recurrent episodes with a substantial risk of being hospitalized and with a gradually increasing risk of new episodes and hospitalizations following each new episode. During the last 40 years, psychiatric outpatient clinics have been developed to treat patients with severe MDD. At the end of the outpatient treatment, patients will have gained skills and knowledge about an array of combined elements that each can promote recovery. However, knowledge-transfer across sectors rarely takes place and the treatment and the recovery-process are often not continued in primary care. Even though collaborative care between psychiatry and primary care has been shown to be more effective than usual primary care in improving depression outcomes, no formal collaboration has been established. General Practitioners experience being solely responsible for the continued treatment and lack sparring with psychiatric services. This current lack of collaboration can contribute to the high risk of relapse of MDD and readmissions after ending the psychiatric outpatient treatment.

**Objectives:** The aim of this study is to develop a complex intervention to prevent relapse of depression through better recovery of adults with unipolar MDD when they are transferred from psychiatry to primary care. The intervention will be developed through a co-design process with stakeholders. The co-design process will analyze the different stakeholders (patients, GPs, social workers, mental- and social care professionals) experiences of barriers and facilitators for trans-sectoral transition and collaboration across sector borders and design a collaborative care model.

**Methods:** A co-design is an innovative methodology with a partnership approach ensuring that stakeholders will find the interventions acceptable and feasible and engage in them. Stakeholders' views will be obtained through fieldwork, individual interviews, focus groups and workshops.

Co-design process:

1. Fieldwork: The municipalities of Copenhagen and Frederiksberg, respectively the social- and employment administration, the Unit of Social Medicine, general practice and psychiatric practice
2. Individual interviews: Patients, GPs and, private psychiatrists (PPs)
3. Focus groups: 1) Social workers from the job centers, 2) patients from IAOC, and 3) an inter-professional group of psychiatrists, GPs, PPs, and professionals from the unit of Social Medicine
4. Workshops: Patients, GPs, PPs, caseworkers from the job centers and professionals from the Unit of Social Medicine

**Perspective:** The developed intervention will be tested in an RCT using the proposed interventions and strategies to reduce relapse, readmission and further personal recovery.