

Voluntary and involuntary hospitalizations in acute psychiatric wards in Norway

By

Kjetil Hustoft

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University of Stavanger
NO-4036 Stavanger
NORWAY
www.uis.no

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Summary in Norwegian / Norsk sammendrag

Bakgrunn og mål

Bruken av tvang i psykisk helseverntjeneste er omdiskutert, og det er enighet om at nivået av tvangsinnleggelser skal være så lavt som mulig. I 2004 - 2005 fikk SINTEF Helse i oppdrag fra Sosial- og helsedirektoratet å bygge opp, etablere og lede et Evalueringsnettverk for akuttpsykiatri. SINTEF Helse inviterte alle helseforetak i landet til å delta. Hensikten var at helseforetakene kom sammen og etablerte ny kunnskap om akuttpsykiatri – et område som så langt hadde et for lite fokus med hensyn til kvalitetssikring og forskning i Norge. Dermed ble Multi - senter studiet for Akutt Psykiatri (MAP) etablert. Denne avhandlingen ser nærmere på bruken av tvangsinnleggelser og hvilke faktorer som påvirker dette.

Metode

Helsedirektoratet og SINTEF Helse inviterte alle helseforetak i landet til å delta. Resultatet ble at 20 akuttpsykiatriske enheter, som utgjorde cirka 75% av alle voksen - psykiatriske akuttenheter i Norge deltok og bidro med data i studien. I løpet av høsten 2005 og våren 2006 samlet hver enhet inn data om akutte, fortløpende innleggelser på frivillig psykisk helsevern og tvangsinnleggelser på henholdsvis tvungen observasjon (§ 3-2 og tvungen psykisk helsevern § 3-3).

Det ble til sammen registrert 3506 innleggelser. På grunn av manglende data på 180 innleggelser, ble 3326 innleggelser basis for alle tre artikler. Inkludert her var også 29 pasienter i alder 15-17 år, da ikke alle steder i landet hadde egne ungdomspsykiatriske sengeposter.

Artikkel 1 «Predictors of involuntary hospitalizations to acute psychiatry»:

Man tok utgangspunkt i disse 3326 innleggelsene og delte dem opp i frivillig innlagte (voluntary hospitalized - VH) og tvangsinnlagte

pasienter (involuntary hospitalized - IH). Data ved innkomst ble registrert i et eget kartleggingsskjema (Registrering av opphold i akuttavdeling i psykisk helsevern voksne - Admission registration form) utviklet av alle de 20 voksenpsykiatriske enhetene i samarbeid. I tillegg brukte man skåringsskalaene Health of the Nation Outcome Scales (HoNOS) og Global Assessment of Functioning (GAF - scale) som inneholder sosio-demografiske variabler og symptom variabler. Ut ifra dette kalkulerte man hva som predikerte at pasienter ble henvist på tvungen psykisk helsevern.

Artikkel 2 «Voluntary or involuntary acute psychiatric hospitalization in Norway: A 24 h follow up study»:

Med samme datagrunnlag tok man utgangspunkt i 1468 henviste innleggelser på tvang, og analyserte disse med hensyn på hva som karakteriserte pasienter som ble konvertert fra tvungen psykisk helsevern til frivillig innleggelse basert på legespesialist i psykiatri eller psykologspesialist med vedtakskompetanse, og hvilke faktorer som predikerte konvertering til frivillig innleggelse basert på en inntil 24 timer maksimum observasjonstid i de akuttpsykiatriske enheter.

Artikkel 3 «Patients' attitudes to psychiatric hospitalization: A national multicentre study in Norway»:

3051 pasienter ble av helsepersonell i de akuttpsykiatriske enhetene oppfattet som at de enten ønsket innleggelse eller ikke i tidlig fase under oppholdet – uavhengig av om pasienten var henvist frivillig eller på tvang. Av disse analyserte man videre 1232 innleggelser henvist på tvang; hva som karakteriserte pasientgruppen og hvilke faktorer predikerte at tvangsinnlagte pasienten svarte «ja» til innleggelse.

Resultater

Resultater fra artikkel 1 «Predictors of involuntary hospitalizations to acute psychiatry» viste at 44% av alle innleggelsene var på tvang.

Pasienter som var tvangsinnlagt var eldre, oftere menn, oftere av en ikke-norsk bakgrunn, ugift, og hadde lavere gjennomsnittlig utdanning sammenliknet med de som ble frivillig innlagt. Pasientene hadde oftere uføretrygd eller fikk sosial stønad, og ble oftere tatt imot på kveld og natt, oftere med rusmisbruk, sjeldnere ansvar for egne barn, og var mindre motivert for innleggelse. Tvangsinnlagte pasienten hadde mindre kontakt med psykisk helsevern før innleggelsen og ble innlagt på grunn av forverring av sin lidelse.

En regresjonsanalyse utført etter de bivariate sammenlikningene viste at det som predikerer for tvangsinnleggelser var; kontakt med politi, henvist av en lege som ikke kjente pasienten fra før, kontakt med helsetjenesten i løpet av de siste 48 timene, at pasienten ikke hadde egen bolig / leilighet, høy scoringer på aggresjon, hallusinasjoner og vrangforestillinger (HoNOS), kontakt med legevakt som innleggende instans og lav score på GAF (Global Assessment of Functioning) symptomdel (var klinisk dårligere).

I artikkel 2 «Voluntary and involuntary acute psychiatric hospitalization in Norway: A 24h follow up study» fant vi at av 1468 pasienter innlagt på tvang ble 320 pasienter (21.8%) så ble henvisningsbegjæring på tvang ikke tatt til følge og pasienten ble tatt imot på frivillig grunnlag etter spesialist - re-evaluering av tvangsparagraf i Lov om Psykisk Helsevern innen de første 24 timer pasienten var innlagt. Prediktorer for at pasienten ble overført til frivillig innleggelse var at pasienten sa at han/hun ønsket innleggelse, bedre GAF symptom score (pasienten er friskere), lavere nivå av hallusinasjoner og vrangforestillinger og mer bruk av alkohol.

I artikkel 3: «Patients' attitudes to psychiatric hospitalization: A national multicentre study in Norway» fant vi at 69.5% av de inkluderte pasientene i studien ønsket innleggelsen uavhengig av om de var henvist til frivillig innlagt eller ble tvangsinnlagt. Som forventet svarte 96.5% av de som ble frivillig innlagt at de ønsket innleggelse, men et uventet funn

var at nærmere en tredjedel (29.7%) av de som var innlagt på tvang sa de ønsket innleggelse. Disse pasientene var sjeldnere henvist av sin fastlege, sjeldnere transportert av politiet, hadde høyere GAF symptom og funksjonsscore (færre symptomer på psykisk lidelse og bedre funksjon), hadde lavere score på aggresjon, hallusinasjoner og vrangforestillinger. De hadde et mer depressivt symptom uttrykk, brukte sjeldnere rusmidler og viste mindre suicidalfare sammenliknet med de tvangsinnlagte pasientene som ikke ønsket innleggelse. Prediktorer for å bli innlagt på tvang og ønske innleggelse var at man ikke ble transportert med politi til sykehuset, utviste lavere grad av aggresjon og brukte i mindre grad rusmidler.

Konklusjoner

Innleggelse på tvang synes å bli styrt av alvorlighetsgrad av psykiatriske symptomer, at pasienten er mann, bruker rusmidler, at pasienten innlegges av en lege som ikke kjente pasienten fra før, har aggressiv adferd og lavere nivå av sosial fungering og mangel på motivasjon for innleggelse. Dette medfører at man må se på hvordan man kan oppnå bedre veier til innleggelse og behandling på et tidligere stadium i sykdomsprosessen.

At man har opptil 24 timer før legespesialist eller psykologspesialist med vedtakskompetanse re-evaluerer om pasienten tilfredsstillende kriteriene for innleggelse på tvungen psykisk helsevern medfører at pasienten som ikke tilfredsstillende kriteriene faktisk i stedet blir overført til frivillig vern. Dette reduserer bruk av tvangsinnleggelser og det styrker lovens funksjon.

Det kan virke som et paradoks at pasienter innlagt på tvang sier at de egentlig ønsket innleggelse og allikevel ikke ble innlagt på frivillig grunnlag. Det er vanskelig å fortolke, men årsaker kan være at pasientene i løpet av den første tiden i akutt mottaksposten endret tilstand i form av bedring i innsikt i egen situasjon, pasientene ble mindre ruset, selvmordstanker ble redusert, eller man ble tryggere i miljøet og på de

ansatte i enheten. Det kan også være at hadde innleggende lege brukt lengre tid på vurderingen av pasienten og blitt bedre kjent med pasienten kunne en tvangsinnleggelse blitt unngått.

Vår studie kan ikke si noe om årsaken til at pasienter blir tvangsinnlagt unødvendig, men det er viktig å fokusere på hva pasienten faktisk ønsker i slike kompliserte innleggelsesprosesser. Det kan tenkes at det blir brukt for mye tvang enkelte steder. Men samtidig kan pasienter ha behov for behandling på psykiatrisk sykehus når dette er nødvendig. Tvang skal kun brukes når det er juridisk grunnlag for det og strengt nødvendig for et videre behandlingsforløp.

Summary (in English)

Background and aim

The use of coercion in mental health care services has been widely debated, and it is agreed that the level of coercive hospitalizations should be as low as possible. In 2004-2005, SINTEF Health was commissioned by the Norwegian Directorate of Health and Social Affairs to build up, establish and lead an Evaluation Network for Acute Psychiatry. SINTEF Health invited all local health trusts in Norway to participate. The purpose was for the local health trusts in Norway to come together and establish new knowledge about acute psychiatry - an area that so far had too little focus with regard to quality assurance and research in Norway. Thus, the Multi-Center Study for Acute Psychiatry (MAP) was established. This dissertation takes a closer look at the use of involuntary hospitalizations and the factors that influence this process.

Study One: - Predictors of involuntary hospitalizations to acute psychiatry

Rates of involuntary hospitalized (IH) patients and involuntary psychiatric treatment of people with mental illness reflect characteristics of national mental health care and laws or other legal frameworks. International studies on the rates of IH in psychiatric hospitals show great variability in results. It is, however, very difficult to compare figures due to differences in methodology of studies and legislation between countries.

The aims of Study One were to examine to (i) the rates of patients admitted to 20 acute psychiatric ward units in Norway for IH, (ii) compare voluntary hospitalized (VH) with IH patients' and (iii) describe the predictors of IH.

Study Two: - Voluntary and involuntary acute psychiatric hospitalization in Norway: A 24h follow up study

The Norwegian Mental Health Care Act states that patients who are involuntarily admitted to a hospital must be reassessed by a psychiatrist or a specialist in clinical psychology within 24 hours to assess whether the patient fulfils the legal criteria of the psychiatric status and symptoms. International research on the process of reassessment of IH in psychiatry is scarce, and an investigation of Norway's routine re - evaluation of IH patients may increase knowledge and understanding of this aspect of psychiatric treatment.

The aims of Study Two were to (i) investigate the rate of conversion from IH to a VH status; and (ii) identify the predictors of conversion from IH to VH.

Study Three: - Patients' attitudes to psychiatric hospitalization: A national multicentre study in Norway.

Being IH raises a number of issues: attitudes from family and society, stigma of being hospitalized against patients own will, and the conflict of autonomy versus need for treatment. Law/policymakers, governments and the public want a reduction in IH. The aims of Study Three were to (i) investigate to what degree do patients referred for VH and IH state that they want admission or not; and (ii) what are the predicting factors for IH patients who stated they wanted admission.

Methods

The Multi-centre study of Acute Psychiatry (MAP) included all cases of acute consecutive psychiatric admissions in 20 acute psychiatric units in Norway, representing about 75% of the Norwegian acute psychiatric units during 2005–2006. Data included an Admission registration form

describing admission variables and the rating scales of Global Assessment of Functioning and Health of the Nation Outcome Scales.

Of the full sample of 3.326 referred patients for admission, 3.051 patients provided data on wanting admission or not. We studied demographics and characteristics of the two groups (VH and IH). We then did a logistic regression analysis by using generalized linear mixed modelling based on data from 1.231 IH patients to calculate predictors of IH who wanted admission.

Results

Study One: Fifty-six percent of the sample were VH and 44% were IH. Regression analysis identified contact with police, referred by physicians who did not know the patient, contact with health services within the last 48 hours, not living in own apartment or house, high scores for aggression, level of hallucinations and delusions, and contact with an out-of office hours / emergency primary health care clinic within the last 48 hours and low GAF symptom score as predictors for IH. IH patients were older, more often male, non-Norwegian, unmarried and had a lower level of education. They were more likely to have a disability pension or received social benefits, and were more often admitted during evenings and nights, found to have more frequent substance abuse, less often responsible for children and were less frequently motivated for admission. IH patients had less contact with psychiatric services before admission. Most patients were referred because of a deterioration of their psychiatric illness.

Study Two: Out of 1468, admissions who were IH (44%), 1148 (78.2%) remained on IH status, while 320 patients (21.8%) were converted to VH. The predictors of conversion from IH to VH (IH → VH) after re-evaluation of a specialist included patients wanting admission, better scores on Global Assessment of Symptom scale (GAF), fewer hallucinations and delusions and higher alcohol intake.

Study Three: 69.5% of the patients stated they wanted admission. As expected, 96.5% of the VH stated they wanted admission. However, nearly one-third (29.7%) of IH patients also expressed a need for hospitalization. In a multivariate analysis, we found that being IH and wanting admission were predicted by not being transported by police, having less aggression and using less drugs.

Conclusions

IH seems to be guided by the severity of psychiatric symptoms and characteristics of the referred patient such as male gender, substance abuse, contact with GP or not, aggressive behaviour, low level of social functioning and lack of motivation. There was a need for assistance by the police in a significant number of cases. This complexity challenges the organization of primary health care and psychiatric health services and highlights a need to consider better pathways to care.

The 24-hour re – assessment period for patients referred for IH, as stipulated by the Norwegian Mental Health Care Act, appeared to give adequate opportunity to reduce unnecessary IH, while safeguarding the patient's right to VH.

It is important to explore the attitude of a patient who has been referred to involuntary hospitalization. This can form the basis for a future dialogue about alternative ways of dealing with the patient's serious mental condition, and as far as possible preserve the patient's autonomy and co-determination, and if possible reduce unnecessary involuntary hospitalizations.

Some patients who expressed the need for admission are still being admitted to acute psychiatric units under IH rather than VH. Thus, it is imperative that more effort should be made in the process of referral and admission by communication with patients in order to achieve a VH. By allowing more time for the referral and admission process, the referring

physician may gain more knowledge of the patient such that an IH would not be necessary.

It is not within the study to establish causality concerning wrongful involuntary admission, but it is important to focus on the patient's wishes in such complicated hospitalization processes. It is conceivable that coercion is used too much in some places. However, at the same time patients may need to receive treatment in a psychiatric hospital when this is necessary despite not being in agreement with the referral physician. Coercion should only be used based on Mental Health Care Act criteria and when it is strictly necessary for the treatment.

List of publications

Paper 1

Predictors of involuntary hospitalizations to acute psychiatry.
Hustoft Kjetil, Larsen T.K., Auestad B., Joa I., Johannessen J.O., Ruud T. International Journal of Law and Psychiatry Volume 36, Issue 2, March–April 2013, Pages 136-143.
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Paper 2

Voluntary or involuntary acute psychiatric hospitalization in Norway: A 24 hour follow up study. Hustoft K., Larsen T.K., Brønnick K., Joa I, Johannessen J.O., Ruud T. International Journal of Law and Psychiatry Volume 56, January–February 2018, Pages 27-34.
<https://doi.org/10.1016/j.ijlp.2017.10.011>

Paper 3

Patients' attitudes to psychiatric hospitalization: A national multicentre study in Norway. Hustoft K., Larsen T.K., Brønnick K., Joa I, Johannessen J.O., Ruud T.

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Abbreviations

VH	Voluntary Hospitalization
IH	Involuntary Hospitalization (IO + IHU).
IH→VH	Referred to hospital for Involuntary Hospitalization, but received on a Voluntary Hospitalization basis after specialist reassessment within 24h.
IH→IH	Referred to hospital for Involuntary Hospitalization, and received for Involuntary Hospitalization after specialist reassessment within 24h.
HoNOS	Health of the Nation Outcome Scales.
GAF	The Global Assessment of Functioning (GAF) split version scale.

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1 Introduction

From treatment to ownership

- *I owned myself*
- *I owned my illness*
- *I owned my treatment, and then*
- *I owned my recovery*

Bumps in the road - a journey through psychiatry in Rogaland, Dag Lieungh (Lieungh, 2018).

1.1 *My pathway to research in mental health*

As a resident physician in psychiatry, I started in 1993, at the Department of Psychiatry – Veum, Østfold General Hospital (Sykehuset Østfold) with clinical supervisor psychiatrist Paul Stronegger. From 1994, I started working at Rogaland Psychiatric Hospital (later named Division of psychiatry, Stavanger University Hospital) and then in 1996 I was connected to the TIPS project (Early Treatment and Intervention in Psychosis (Tidlig Intervensjon ved Psykose)) collecting data for the Assessment Team. In 2001 the hospital opened Section of acute psychiatric ward C2 (Akutt Mottakspost C2 (AMC2)) for patients staying up to 24 hours in order to safeguard legal and medical routines around involuntary admission. At the same time, we started collecting administrative demographic data about our acutely admitted patients. From January 1st 2002 to December 31st 2020, we have had 41.622 acute hospitalizations, and 14.957 (35.9%) patients were referred for involuntary hospitalization (IH) from our catchment area of approximately 360.000 inhabitants.

My interest for research on the use of voluntary and involuntary hospitalizations was established. I was therefore very happy when our

institution gave me the opportunity to participate in the Network of Acute Psychiatry. Every site participating had a local project leader. My role was to be the local project leader for the Division of psychiatry, Stavanger University Hospital site. During national meetings, a process for research was developed and a publication committee was established. The Publications Committee was broadly composed, and it was useful for me to be a member of this committee.

1.2 The MAP study

In 2003, the Social and Health Directorate (Sosial - og Helsedirektoratet) gave SINTEF Health Norway (SINTEF Helse) the assignment to conduct a network of clinicians working in acute psychiatric units in mental health hospitals in Norway. The purpose was to develop a network of psychiatric acute units to increase quality evaluations and research, and to design a common systematic study of acute psychiatric admission and treatment in Norway. The final aim was to develop reports, scientific papers and PhD degrees.

The project was named the Multi-centre study of Acute Psychiatry (Multisenter studien av akuttpsykiatri (MAP)). The planning for a common data collection was prepared during 2005 -2006.

A final report was made by SINTEF Health based on results from collaborating psychiatric emergency units in Norway delivered to The Norwegian Directorate of Health (T. Ruud, Gråwe, R.W., Hatling, T., , 2006b).

Up until that point, there did not exist any research in Norway that had examined the process from the first meeting between patient and primary care and the reassessment of criteria for IH completed by a specialist in psychiatry or clinical psychology on a large scale / national level.

In the process of establishing a network for acute psychiatry, we developed a common Admission registration form with variables

describing the admission process voluntary hospitalization (VH) or IH for all 20 acute psychiatric units in Norway. We also agreed on one question would be included as the patient's own voice – “did the patient want or not want admission” (T. Ruud, Gråwe, R.W., Hatling,T., , 2006b).

1.3 Background

1.3.1 Key concepts

Coercion is the action or practice of persuading someone to do something by using force or threats. It includes IH, forced use of medication for a short or long period (chemical restraint), seclusion and isolation, physical restraint / holding, use of mechanical restraint, time out / isolation (placed in a room with the door locked), constant observation and emergency law based involuntary electro convulsive therapy (ECT) (Bak & Aggernaes, 2012; Gooding, 2018).

Coercion may also be explained as excessive pressure or influence to force or entice a person to act in a given way. It may be exercised by offering excessive incentives, applying social pressure, using authority figures, or otherwise manipulating the vulnerable person or group (Porta, 2014,).

Compulsion is the action or state of forcing or being forced to do something, a constraint, and can be understood as synonymously with treatment pressures, including “interpersonal leverage”, and even “persuasion.”(Dictionaries.com, 2019; Szmukler, 2015).

Psychiatric detention is the action of detaining someone, or the state of being detained in official custody / “isolation from friends and family,” (Dictionaries.com, 2019).

Involuntary placement equals forced or non-consensual placement, commitment or treatment. It can be defined as any treatment, placement in, or commitment to a hospital or other institutions administered against someone's expressed wishes – expressed verbally or by any other means (body language, advanced directive etc.). The legal definitions of involuntary placement and treatment vary from country to country (Mental Health Europe and The Tizard Centre at the University of Kent, 2017).

Involuntary hospitalization (IH) can practically be described as admission to a psychiatric hospital for treatment done without the patients will or conscious control. Wu et al describes IH as *“patients are coerced against their wills as they have been incapable, meaning not able to make decisions, and a threat to themselves or others (Wu, 2012b).”*

In most European and other westernised countries, a Mental Health Care Act law separates voluntary from involuntary admissions through different sections / paragraphs or regulations. In this thesis, we will use the terms IH, and the opposite - voluntary hospitalization (VH) - as the other and opposite legal description of psychiatric hospital admission.

Voluntary hospitalization (VH) is defined as an admission to a psychiatric hospital done, given, or acting of one's own free will. <https://www.lexico.com/en/definition/voluntary>

Community treatment order (CTO) (in Norwegian: Tvang uten døgn = TUD) is a mental health law status where patients who have been discharged from an IH status and can be readmitted IH without an assessment by a physician at the municipal health level (Rugkasa, 2016; Rugkasa et al., 2019). In Norway, these patients will be counted as IH when readmitted.

When a patient is admitted to a psychiatric hospital because of a psychiatric illness or a suspicion of an emerging psychiatric illness, there

may be conflict between the patient's level of insight, capacity to make decisions for treatment, and the patient's legal right for autonomy. The illness can be described naturalistically as a disruption of natural bodily function (Danzer & Wilkus-Stone, 2015), or as distress and disability with a clinically significant behavioural or psychological syndrome or patterns that occurs in an individual resulting in impaired functioning (Radoilska, 2012).

Insight

Insight has been defined as the capacity to recognize and accept having a mental illness (Thirioux, Harika-Germaneau, Langbour, & Jaafari, 2019). The opposite - having a lack of insight - is being unaware of one's mental illness. When a person has insight in his / her mental illness, the person is aware of symptoms and their consequences, and can attribute a cause to the symptoms, agree with others with regards to the reality of the disease, recognize that cognitive deficits are induced by the mental illness and being convinced that the he or she is suffering from a mental illness.

A number of studies have shown that patients with severe mental disorders have lack of insight. Historically the absence of insight was regarded as a symptom of psychosis and a hallmark symptom of schizophrenia (Case, 2016). It has been explained as a psychological defence mechanism, damage to the frontal or right parietal lobe or lesions in grey matter. It may also be given as a reason for a patient lacking capacity to consent. In studies of patients with schizophrenia, 50-80% of patients did not believe that they had a mental disorder (Gilleen, Greenwood, & David, 2011; Raffard et al., 2008).

In a prospective observational study from three psychiatric in-patient units in western Ireland, they studied 263 IH respondents on admission. Then, 155 respondents were interviewed again three months following termination of their involuntary admission order (Bainbridge et al., 2018). When asked at each point whether they believed IH had been

necessary, at initial interview 42% agreed, and at follow up 65% agreed. Higher awareness of illness at baseline was associated with more satisfaction with care at baseline and follow-up.

Incapacity

Lacking capacity or being in a state of incapacity has been defined by lawyers as being: “... *unable to make a decision on the issue at hand, that inability being caused by an impairment or disturbance of the mind or the brain.*” (Case, 2016). Prevalence of incapacity among psychiatric patients has been found to range from 40 to 60% (Cairns et al., 2005; Owen et al., 2009). Patients with schizophrenia and mania were highly likely to have mental incapacity, while only a minority of depressed patient lacked capacity. Thirty-nine percent of voluntary and 86% of involuntary patients lacked capacity. In a study of 200 IH patients 23% were not able to communicate their decision to hospitalization (Alexius, Berg, & Aberg-Wistedt, 2002).

Autonomy

Autonomy is a Greek word made from “autos” meaning “self“ and “nomos” meaning “rule.” (Beauchamps, 2013). An autonomous person has the capacity to understand reason, be deliberate and choose independently. The ability to act with autonomy is challenged in a number of different ways in the life of an average person. Are we autonomous while being in love? Young age, dementia, or a serious accident leading to unconsciousness might weaken your ability to take full responsibility for your choices or actions. So does mental illness at times.

Autonomy has been defined as “the capacity to make and act on deliberated or reasoned decisions” (Harris, 1990). Harris further exemplifies autonomy as ‘self-government’ and control your own life and destiny. Full autonomy may be an ideal situation and different circumstances can undermine that goal. Autonomy is also described as

desires, reasons and actions originating in and belonging to the self. (Radoilska, 2012).

There is also an ethical dilemma between autonomy and an effective treatment. Autonomy may exist when there is a communication between persons with mutual acceptance and respect (Hoff, 2019). However, this may not be the case with a person with lack of insight and with incapacity to make reasonable decisions.

Above we have shown there are several definitions on patients who are admitted against their will to psychiatric hospitals for treatment. However, IH may be the simplest and most frequently used concept for describing the action of admitting a patient against their will under the Mental Health Care Act.

Generally, health laws are based on the concept that the patient has the ability to consent to treatment. However, both in somatic medicine, when patients are traumatized and in a near comatose state, or in psychiatry, when a patient has severe mental health symptoms, research has shown that the patient is not in a fully autonomous situation, and the ability to choose treatment is often reduced.

1.3.2 Rates of involuntary hospitalization

Rates of IH varies around the world. However, there are few studies with sound methodology and representative samples. Some countries have only provided reports on certain hospitals or regions (figure 2).

IH in Norway

The Norwegian Directorate of Health, SAMDATA, aims to develop, analyse and publish processed and comparable management indicators for the specialist health service. For psychiatry, IH includes section 3-2 compulsory observation (maximum 10 days duration) and section 3-3 compulsory mental health care (regular assessments are required at 3,6

and 9 months) (University of Oslo, 1999). National reports from Norway show varying rates of IH: 21% of all admissions in adult psychiatric institutions in 2008 were IH, 15.6% in 2013 17.5% in 2018 and the latest prognosis of 18.2% in the third tertile 2019 (The Norwegian Directorate of Health, 2009a; The Norwegian Directorate of Health / Bremnes, 2019).

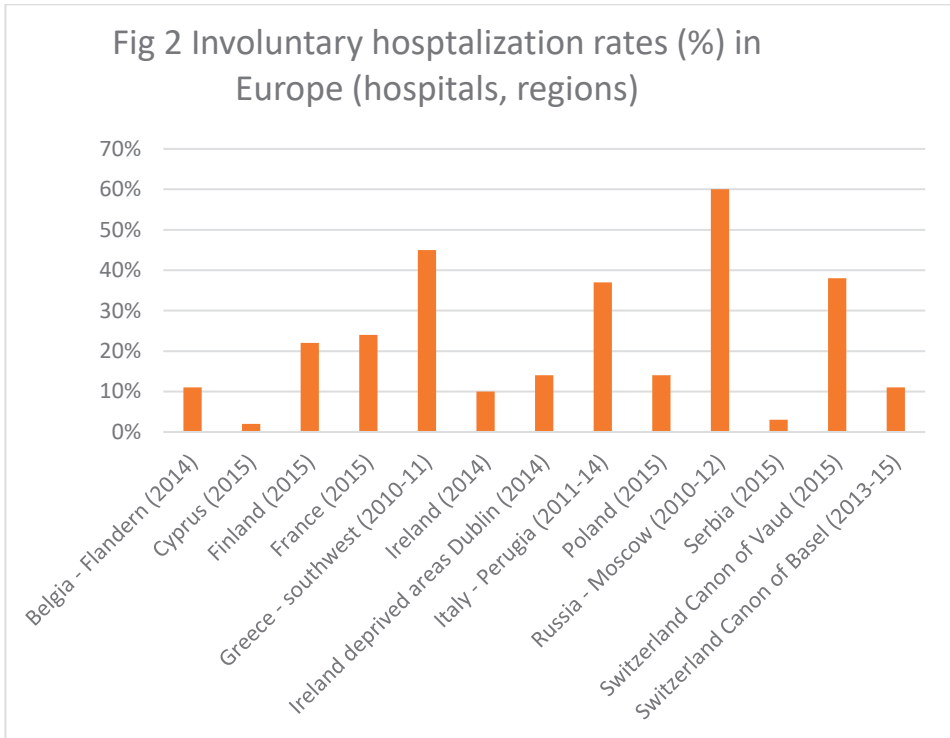
According to a report from the Norwegian Directorate of Health the population-based rate of IH in the regions of Norway in 2002 varied from 80 per 100,000 inhabitants over 18 years of age in the county of Sør-Trøndelag to 394 per 100,000 in the county of Østfold (The Norwegian Directorate of Health, 2003). This geographical variation was confirmed by a national report (The Norwegian Board of Health, 2006).

The national numbers of IH per 100 000 inhabitants per year for the years 2012, 2016 and 2017 showed a natural variation respectively of 183, 190 and 179 (The Norwegian Directorate of Health / Bremnes, 2019). After the change in the Mental Health Care Act from 1st of September 2017, the national rate was 186 / 100.000 in 2018, and estimated 187 / 100.000 in 2019 (The Norwegian Directorate of Health, 2020).

IH in Europe

It is difficult to determine the national IH rates in different European countries due to different mental health legislation, no international clarification of concepts and non-representative samples (some national statistics only show IH from selected hospitals or regions within countries). The available rates are shown in figure 2. However, the IH rates varies from 2.0% in Cyprus to 24.0% in France while Turkey had a rate between 70-85% that included forensic patients. It is not always clear if forensic patients are included or not in calculated rates from each country (figure 2) (Turnpenny, 2017b).

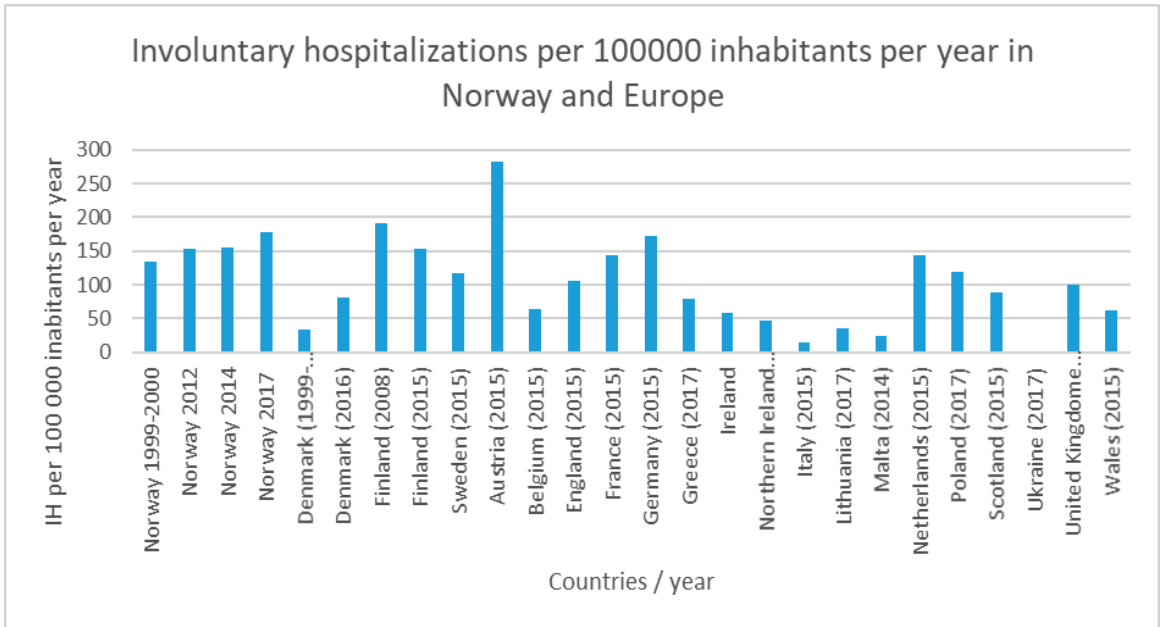
Some studies present rates from particular hospitals or regions. From 2000 until 2017, the IH rates ranged from 8.1% in some areas of Dublin, Ireland to 60% IH in a study of psychiatric emergency hospitalization in Moscow, Russia (Sheridan Rains et al., 2019; Tsygankov, 2013a).



Generally, the national IH per 100 000 per year in European Union (EU) countries during 1990-2000 was rather stable within each country. However, studies showed a range from 6.0 per 100 000 per year in Portugal to 218 per 100 000 per year in Finland (H. J. Salize & Dressing, 2004). From 2008-2017 lowest rate was Ukraine with 2.3 per 100 000 per year, Italy 14.5 per 100.000, and highest Austria 282 per 100.000 (Sheridan Rains et al., 2019) (figure 3). We did not find year-by-year population IH rates for all European countries. We do not know if this variation is due to a combination of different legislation, statistical

collection, culture or other reasons (Bak & Aggernaes, 2012; Balducci, Bernardini, Pauselli, Tortorella, & Compton, 2017; Curley et al., 2016; McKeown, 2019a; Ng & Kelly, 2012; Schoevaerts, Bruffaerts, Mulder, & Vandenberghe, 2013; Sheridan Rains et al., 2019; B. Silva, Golay, & Morandi, 2018; M. Skokou, Gouma, P., Gourzis, P., 2017a; Smith, 2014).

Fig 3. IH per 100.000 inhabitants per year in Norway and Europe.



IH in the rest of the world

In a study of IH and legal frameworks of western European countries, Australia and New Zealand (2008-2017) there was no relationship between annual IH rates and any characteristics of legal frameworks. However, higher national rates of IH were associated with larger number of beds, higher Gross Domestic Product (GDP), proportion of foreign-born individuals in the population, and lower absolute poverty. There were no associations between annually IH incidence and any other

demographic, economic, or health-care indicator (Sheridan Rains et al., 2019).

In a meta-analysis of 94305 patients in China, the overall IH rate was 32.3% for severe mental illness (Yang et al., 2019; Zhou et al., 2015). The analyses reported increased rates of VH due to reduction in stigma, public education of mental health, new local and national mental health laws, easier access to mental health services, more educated health personnel and wider coverage of the health insurance system. In a study from Taiwan the IH rates were 94,7% in 2009 (Hui-Ching Wu, 2012). A possible explanation for this high number was the societal thinking based on Confucianism, with similarities to western paternalism and a focus on public security, caregiver burden and lack of support for caregiver and patient in society.

In summary, when we discuss why IH rates differ, the literature show that comparing hospitals, regions or countries' rates of IH can be difficult. National compatible statistics may also be inadequate due to different health care system; some nations have both governmental hospitals (general psychiatric hospitals and/or forensic hospitals) and private hospitals. This makes comparisons challenging. New research indicate that the psychiatric infrastructure, the national economic situation and heterogeneity in the population may be factors that explain the differences in level of IH (Sheridan Rains et al., 2019).

1.3.3 Mental Health Care Acts / legislation

History of Norwegian Mental Health Care Act legislation

Norway has a long tradition of law making for the mentally ill person. Special rules for people with mental health disorders goes back to the old "Ting Lov" (Land Code). Laws were made from the eighth century when the king met the people at the Things (in Norwegian: Ting møtet)

(Michael Quarterly / The Norwegian Medical Society /Det norske medicinske Selskab, 2017). According to the “Ting Lov” (Land Code), it was the family who had the main responsibility for the "insane". The Things («Ting-møtet»), a parliamentary meeting, determined the question of the mental illness and the family was judged responsible for the insane. Magnus Lagabøte’s national law replaced the «Land Code». King Magnus the 6th, “Magnus the lawmaker / law mender”, made the first law of this subject in Norway 1274-1276 A.C (King Magnus the 6th of Norway, 1276) (picture 1). The law said: *The nearest heir in the family had the right and duty to take care and support the mentally ill.* The heir who supported the mentally ill also decided over his/her personal freedom. No person should be treated as insane before an expert had “proven” his or her insanity.



Picture 1: King Magnus the 6th, “the lawmaker”,

Source: Stone carving at Stavanger Cathedral.

Wikipedia.com Stavanger archaeological Museum



Picture 2: Dr. Herman Wedel Major

The Journal of Norwegian Medical

Society.

In 1736, a royal decree came from Copenhagen, Denmark to build so-called dollhouses. In 1760 - 70, a few small houses were built for the insane. A “Dollhouse” was established at Oslo Hospital in 1778 (Abrahamsen, 2000). A medical doctor cared for the insane inmates' somatic problems and a priest for the needs of the soul. In 1855 the first psychiatric asylum, Gaustad hospital was built in Oslo, Norway.

In Norway, the first modern Mental Health Care Act was developed in 1848 (Act on the Treatment and Caring of the Insane / Lov om Sindsyges Behandling og Forpleining) authored by the medical doctor Herman Wedel Major, who was in fact solely responsible for the preparation of this law (picture 2)(Høyer, 2016). The new principles in the Mental Health Care Act were that all severe mental illness could be healed, all mental health asylums must have a royal authorization, no dollhouses must be authorized, and physicians must govern all psychiatric asylum hospitals. The supervisory commission (in Norwegian Kontroll kommisjonen) was introduced to secure rule of law for the patients.

The law was revised in 1961. The focus was on getting patients treated quickly without too many inhibitory formalities. The law placed less emphasis on guarantees of legal certainty, but that the patient had the opportunity to appeal the admission. There were two consecutive revisions in 1981-88 and 1995-97 (Lov om psykisk helsevern (Ministry of Social Affairs, 1961). From the 1970s onwards, psychiatric patients were seen as a particularly oppressed group, and psychiatry was part of a power apparatus that exercised social control. (Michael Quarterly / The Norwegian Medical Society / Det norske medisinske Selskab, 2017). The Parliament revised all health laws in 1999 (Ministry of Health and Care Services, 1999a, 1999b; Norwegian Ministry of Health and Care Services, 1999a, 1999b) including a new Mental Health Care Act Law No. 62, Odelsting Proposition No. 11. The law came into force in 2001. A new law proposal was presented in 2011 by the Paulsrud law committee, but did not come into effect (Paulsrudutvalget, 2011). The focus here was self-determination and the rule of law. The latest revision came in 2017 (The Norwegian Directorate of Health, 2017a) with the introduction of capacity to consent. Finally, a new law proposal for the use of coercion at the municipal and specialist health service level was presented in 2019 by the Østenstad law committee (Norway's public investigations / Norges Offentlige Utredninger NOU 2019 14, 2019). The Norwegian Parliament has still not evaluated this proposal.

Aspects of European Mental Health Care Act legislation

In European countries, mental health laws are very different with regards regulating who can propose a psychiatric admission, and who has the authority to decide if the patient is eligible for IH, and determine the period of detention (T. W. Kallert, Torres-Gonzales, F., 2006),

As Table 2 shows there is a variance in who can refer a person to be admitted for IH from “any person” (Spain), relatives or guardian (Bulgaria, Czech republic, England, Greece, Slovak Republic), approved social worker (England), physician (Bulgaria, Italy, Norway, Poland and Sweden), psychiatrist (Lithuania, Poland), or an administrative authority (Germany).

In most countries the criteria for IH is assessed by a physician or a psychiatrist at the hospital level. However, in Norway a psychiatrist or certified clinical psychologist may conduct this evaluation. The European Torture Commission (The European Commission for the Prevention of Torture or Inhuman or Degradation Treatment or Punishment) recommended in 1994 that involuntary admission could only be made after a court decision. But Norway chose not to follow this recommendation (The Norwegian Medical Society / Det norske medicinske Selskab, 2017). In European countries, several professions have the decisional authority and participate in the IH process. In England they include a physician and a social worker, in Greece a public attorney / prosecutor and assessment by two or three psychiatrists, in Germany several agencies; administrative authority / police / judicial / psychiatric hospital, and in the Netherlands the town mayor or court order may in acute situations authorize the IH (de Jong et al., 2016; T. W. Kallert, Torres-Gonzales, F., 2006; M. Skokou, Gouma, P., Gourzis, P.,, 2017b). The period from when the patient enters the psychiatric hospital until the decision has to be concluded varies from less than 24 hours (Germany), most countries 24 or 48 hours, and up to four weeks in Sweden.

Table 2 Involuntary hospitalization processes in Europe - emergency legal procedures*.

European country	Can refer patient to hospital admission	Authority to decide hospital admission	Period until re-evaluation (hours)
Bulgaria	Relatives Physician	Head of health service	24h to 48 h
Czech republic	Parents / relatives /guardian	Physician	24 h
England	Relatives + approved social worker	Physician / + social worker	72 h
Germany	Administrative authority	Administrative authority / police / judicial / psychiatric hospital	Until 10 a.m. next day
Greece	Relatives or guardian	Public attorney /Public Prosecutor Assessed by two or three psychiatrists **	48 h Greek law 2071/1992
Israel	Any psychiatric examination	Hospital director,	48 h

		Must refer to district psychiatrist	
Italy	Physician	2 physicians	48 h
Lithuania	Psychiatrist	Psychiatrist	48 h
Norway	Physician	Psychiatrist / approved psychologist *	24 h
Poland	Physician / psychiatrist	Psychiatrist	48 h
Slovak Republic	Parents or relatives / guardian	Physician	24 h
Spain	Any person	Psychiatrist	24 h
Sweden	Physician	Psychiatrist	4 weeks

Table designed after Legislation on Coercive Mental Health Care in Europe page 380. Kallert & Torres-Gonzales, 2006. (T. W. Kallert, Torres-Gonzales, F., 2006)

*There has to be two physicians to evaluate the patient clinically, one outside hospital, and one inside hospital. Inside the hospital, an approved clinical psychologist can do the specialist re-evaluation for Mental Health Care Act criteria.

** Compulsory admissions in southwest Greece 2010-2011 (M. Skokou, Gouma, & Gourzis, 2017).

Mental Health Care Act legislation outside Europe

In The United States of America the first psychiatric official commitment took place in Philadelphia in 1752 (Fariba, 2022). From the 19th century up to the 1960's "mental illness" and "a need for treatment" was the criteria for IH (R. A. Brooks, 2006). Then there came a change from the 1970's. California State was the first state to demand that it had to be proven the patient was mentally ill, dangerous to self or others and unable to care for oneself in order to be IH.

Japan has been seen as a country of paternalism, based on the assumption that physicians possessed the knowledge and the patient ought to rely on the physicians decision (Hayashi et al., 2000). Japan had a civil commitment for patients with severe mental disorder from the pre-Meiji Restoration era (1868). They had a law allowing IH for patients without them being dangerous to self or others but in need of treatment.

Mental health legislation may be different within regions and between countries. As described here, the process of IH may also be different, based on who can refer a patient to a hospital admission, who has the authority to decide if the IH fulfil the legal criteria, and the period from when the patient enters the hospital to the decision on staying IH is concluded.

There is a continuous debate in the public, between lawmakers and among health workers in regards the care of patients with severe mental health symptoms versus the cut off point for IH criteria, and the ability for health personnel to provide adequate treatment for patients. To manage these issues in the interest of the patients and the public, there are quality assurance bodies such as the Supervisory Commission (in Norwegian: Kontroll kommisjonen) - to oversee and respond to patients complaining about IH and other uses of coercion in psychiatric units. States also have to reconcile their Mental Health Care Act laws with the United Nations Convention on the Rights of Persons with Disabilities and Optional Protocol (UN-CRPD) (United Nations, 2006).

1.3.4 Attitudes to involuntary hospitalization

The goal for psychiatric services to the public and the patients is to give the patients adequate treatment, and protect patients with a mental illness from self-harm, suicide, harmful consequences of untreated mental illness, and to protect relatives, healthcare staff and the general public from preventable aggression and violence (Huber & Schneeberger, 2020).

The process of being IH can be discussed on several levels: from the view of the patient, the family, health personnel and society in general.

The patient

Being involuntary hospitalised represents a personal loss of autonomy. There are studies showing that IH patients describe their admission process and opinion about hospitalization and treatment as an overall negative experience:

A Swedish study from a psychiatric emergency unit of 200 IH patients with severe psychiatric disorders showed that 53% were negative and 24% were ambivalent to hospital care, while 23% were not able to express their opinion about hospitalization. (Alexius et al., 2002).

In an Australian study of 100 IH and VH patients, the IH patients reported feeling coerced, angry about hospitalization, being hospitalized felt like a prison, and believed hospitalization would be harmful when asked within a week of admission (Spence, Goldney, & Costain, 1988). Similar opinions from patients were found in a smaller study from Ohio in America of 15 IH patients who had been admitted to a state psychiatric hospital. Their experiences were that prior to admission they were frightened, anxious, overwhelmed, confused, tired, felt they were losing control, and had concerns about taken from their family (Joseph-Kinzelman, Taynor, Rubin, Ossa, & Risner, 1994). When going through the admission process retrospectively they said they focused on being scared, not knowing what to expect, “what are the rules,” fear of being locked up and hopelessness. They wanted staff to be more flexible, taking time to listen and be attentive to their physical and emotional needs, re-evaluate medication after being given explanations and answer questions. When asked specifically about being IH, they answered their major concerns were an emotionally painful time, and a demanding experience, coping with intense feelings, lack of personal freedom and choice, unhelpful staff relations and boredom. They reported having experienced anger, fear, sadness and being trapped.

In a semi-structured qualitative study of 13 previous psychiatric patients in Norway with a focus on humiliation in relation to being hospitalized, IH patients described “loss of freedom” as humiliating (Husum, Legernes, & Pedersen, 2019).

In a descriptive exploratory qualitative study from Sweden, with seven patients with experience of IH, two of the patients acknowledged that coercive actions in the beginning of the hospitalization was necessary (Olofsson & Norberg, 2001). However, they experienced the coercion in a negative way by describing feeling powerless and not listened to and wanting more responsibility. Seven nurses, seven physicians (six psychiatrists and one psychiatrist resident) were also interviewed about the IH. Patients, nurses, psychiatrists said the coercion was to protect and calm patients. Patients agreed that the purpose of coercion “was to protect them” (the patients), and they emphasised that interpersonal relationships and the human contact were important.

In a veteran psychiatric hospital study in Durham, USA, of 240 VH and IH inpatients with schizophrenia spectrum disorders, severe mood disorders or Post Traumatic Stress Disorder (PTSD), current and prior IH patients had a lower satisfaction rating score of being hospitalized (Strauss et al., 2013).

The MacArthur research network on mental health and the law concluded in 2001: “The amount of coercion a patient experiences in the mental hospital admission process is strongly associated with the degree to which that process is seen to be characterized by “procedural justice.” That is patients who believe they have been allowed “voice” and treated by family and clinical staff with respect, concern, and good faith in the process of hospital admission, they reported significantly less coercion than patients not so treated. This holds true even for legally “involuntary” patients and for patients who report being pressured to be hospitalized” (The MacArthur research network on mental health and the law, 2004).

Patients have also described examples of “informal coercion” as a situation when patients accepts IH to get help due to the lack of voluntary beds (Norvoll & Pedersen, 2016).

The family

The process of IH, getting help often starts when the closest person (s) to the patient sense a mental health change. A Greek study of 183 IH patient showed that 93.6% of all applications of IH-admission processes were initiated by the relatives (M. Skokou et al., 2017).

Having a family-member with severe mental illness can be a difficult challenge and even a burden for families. In a qualitative study from 12 hospitals in England of 31 family caregivers experiences of the first IH of their family member, the most common response to the IH was conflicting emotional experiences; relief, then worry and guilt. They also reported frustration in delay of getting help from mental health services. They did not know how to start contact with the psychiatric health system, since they had no prior experience of IH (Jankovic et al., 2011). In other regions of the world (South India) caregivers’ methods for getting a patient admitted were described as: using threats 52.5%, persuasion 48.5%, or with the help of police / the community 21% (G. S. Gowda, Kumar, N., Ray, S., Das, S., Nanjegowda, R.B., Math, S.B., 2019). Reasons for admissions were risk of harm to self (82.5%), altered biological function (81.5%) and risk of harm to others (64.5%).

Health personnel – psychiatrists, physicians and psychologist

The attitudes of psychiatrists may be influenced by the given role to decide IH or not, their knowledge of mental health disorders and the need for treatment. Therefore, the opinion of psychiatrists concerning the criteria for an IH has a central value. In a survey of 726 psychiatrist in the United States of America in 2001, psychiatrist were asked for the criteria they wanted for an IH in a Mental Health Care Act (R. A. Brooks, 2006). Ninety-nine percent wanted criteria that included danger to self,

dangers to others (99%), and grave disability (90%), illness relapse (52%), sexual predator (26%), drug addiction (22%) and alcohol addiction (22%).

Swedish physicians (18 psychiatrists and 37 residents) who had committed 200 IH patients, stated that the most important determinant for IH was the patients' psychiatric symptoms (Alexius et al., 2002). The physicians concluded that 93% of the IH were necessary because it benefitted the patient. Resident physicians more often than psychiatrists, and a greater proportion of male physicians believed IH would benefit the community. Older physicians reported that IH would violate the patient's autonomy. Swiss psychiatrists in Canton Zürich viewed IH significantly more as "offending" and less often as "treatment" compared to other physicians (Hotzy et al., 2019).

However, other professions may have different views of IH. Norwegian psychiatrists and psychologists, in a study of mental health professionals, were presented with case reports. Psychiatrists would much more often have used coercion than psychologists (Aasland, Husum, Forde, & Pedersen, 2018b). Psychiatrists scored highest and psychologist lowest on an authoritarian scale (Aasland, Husum, Forde, & Pedersen, 2018a). The study also revealed that mental health professionals lacked sufficient knowledge of the Mental Health Care Act.

Health care workers and other health related professions

We might think that attitudes towards IH may be different at different locations due to different ward culture, hospital architecture, number of beds available and number of health personnel working there. However, a study comparing staff attitudes to coercion at two psychiatric hospitals with closed wards in eastern Norway, found little variance in staff attitudes across the two hospitals and between staff groups (Wynn, Kvalvik, & Hynnekleiv, 2011). Males and unskilled staff were significantly more prone to highly restrictive interventions.

In a qualitative study of seven patients, seven nurses and seven physicians, nurses and physicians said coercion was done to create a “*working alliance ... and provide structure and opportunity to work with the patient*” (Olofsson & Norberg, 2001). The patients said human contact, being met with understanding and closeness, more time from staff to listen and talk to patients, and to wait and see instead of acting would prevent coercion. Staff should actively identify areas where patients were free to make decisions even if they were IH.

In Taiwan, 235 social workers were interviewed. The respondents considered IH from a pragmatic point of view, meaning they believed it to be a means of providing care and security (Wu, 2012b). Most of them favoured patients’ rights to a good environment and daily life over the right to refuse treatment and the right to make legal decisions.

Society in general

The use of mental health laws, IH and involuntary treatment is often debated in public and in the media.

An interdisciplinary international research group of expert contacts from 10 European countries and India distributed a Mental Health Legislation Attitudes Scale of nine questions to networks consisting of medical practitioners, GP’s and psychiatrist (33%), mental-health nurses (29%), criminal justice, legal professionals or police (23%), and close family members of a person who had an IH experience (16%) (Georgieva et al., 2019). The online-anonymized study recruited 2288 professional and family members, all with experiences of IH. They were asked to rate their satisfaction (on a 5 point Likert’s scale) of the mental health legislation in their country. The countries with the lowest satisfaction of the current mental health law were Ireland (64%) and India (65%). The highest satisfaction were Denmark (74%), England and Wales (76%). Among the Nordic countries, Denmark (74%) and Iceland (68%) were more satisfied than Norway (67%), maybe partly explained by higher rates of IH in Norway. Doctors (68%) and nurses (71%) were significantly more

satisfied than police (63%) and family members (63%). Gender, age and overall work experience was not associated with overall satisfaction. However, the more experience the respondent had with IH, the higher their level of overall satisfaction with the mental health legislation in their country.

A Norwegian study of attitudes towards IH and involuntary treatment was conducted by computer assisted telephone interviews by an independent polling company. One thousand adults were interviewed in 2009 and another 1.001 people completed the same survey in 2011. (Joa et al., 2017). Results showed that between 87% and 97% of respondents expressed strong or partial agreement with the use of IH or involuntary treatment related to specified cases and situations. The majority (56%) stated that overall, current levels of IH were acceptable. A further 34% were of the opinion that current levels were too low. Only 9.9% of respondents supported a reduction in the level of involuntary treatment. Lower levels of education were associated with a more positive attitude towards IH and treatment. The study showed there was a stronger support for admission to prevent suicide than the possibility of violence by the mentally ill. The study concluded that the Norwegian adult population largely supports current mental health legislation and practices regarding IH and involuntary treatment in the mental health services.

Two studies have used case reports. In a study of 1.737 health personnel and lay people's attitudes to IH based on presented case reports in four countries in Europe (2005), 51% - 91% agreed to IH (Steinert, Lepping, Baranyai, Hoffmann, & Leherr, 2005). Psychologists and social workers were less supportive while psychiatrists, nurses and lay people supported IH the most. In a smaller French study of 123 lay people and 31 health personnel, 95% agreed that IH was acceptable under certain conditions. Seventy percent of nurses, 83% of physicians and 100% of psychologists were not systematically opposed to IH (Guedj, Sorum, & Mullet, 2012)

Students and their parents

In a Japanese study about respecting autonomy in difficult medical settings (brain death, organ donation, death with dignity, euthanasia, suicide and IH), 747 students at non-medical universities and colleges and 114 parents of the students were interviewed. Two thirds stated that IH for individuals with mental illness should be justified (Hayashi et al., 2000). The patient's decision was most respected concerning death with dignity (90.9%) and euthanasia (86.3%), and the lowest with IH (31.1%) and suicide 21.1%).

In Israel 170 medical students with completed internship in psychiatry and 170 law students in their final year, completed a questionnaire on attitudes towards prolongation of an IH. There were no significant difference between the two groups concerning prolongation of IH regardless if this decision was against the patients will, or according to the patients will or against the advice of the treating physician (Abramowitz, Bentov-Gofrit, Khawaled, Bauer, & Cohen, 2011).

In conclusion, based on all these studies, patients with an IH admission most often do not have a good experience with being IH, but some patients perhaps later may understand the need for IH. Families often find it distressing being in a pressured situation where they discover the patients' need for hospitalization, while the patient, due to severe symptoms, may not want to be hospitalized at all. Psychiatrists, who mostly are the designated profession who often have the judicial power to decide and handle the IH and see the consequences of such a choice concerning treatment possibilities, have a more positive and understanding attitude for the need of IH while other health professions with less responsibility for IH decisions may have a less understanding attitude to IH. Other health personnel who do not have the function of deciding IH or not, may have a more critical role to IH. When the public is asked there seem to be a clear understanding that severe mentally ill patients need admission and treatment in psychiatric hospitals, even if the patient himself / herself can see the need of it. However, it is the national government / parliament who decide the Mental Health Care

Act. The law content and consequences for the patient has to be founded in the people of the nation, and express how this nation want to give treatment and care for severely ill mental health patients.

2 Objectives and aims

2.1 Objectives

This study investigated consecutively admitted patients in 20 psychiatric emergency wards all over Norway in order to get a more profound knowledge of the different processes related to the use of IH.

2.2 Aims

Article I

- a. To examine to which extent patients were referred on an involuntary basis.
- b. To compare IH with VH patients.
- c. To describe which factors predicted use of referral for IH.

Article II

- a. To investigate the extent to which IH patients were converted to VH.
- b. To identify predictive factors leading to conversion.

Article III:

To explore patients' attitudes towards voluntary and involuntary hospitalization in Norway.

3 Materials and methods

3.1 Design

The study included patients consecutively admitted to 20 acute psychiatric emergency wards in Norway during autumn 2005 and spring 2006. It was a part of The Multicentre study of Acute Psychiatry (the MAP study).

3.2 Inclusion criteria and material

Data were collected from all consecutive hospitalizations during three months at 20 acute psychiatric wards in Norway during autumn 2005 and early 2006. The twenty participating health trusts represented a large sample of emergency psychiatric admissions, represented by all geographical regions in Norway, urban and rural, and 75% of all acute wards in the country.

Psychiatric emergency wards who participated were from the following health trusts (by geographical location): Sanderud, Reinsvoll, Kristiansand, Arendal, Haugesund, Stavanger, Bergen, Tromsø, Aker, Ullevål, Vinderen, Bodø, Tromsø-Karlsøya, Drammen, Tønsberg, Skien, Førde, Molde, Namsos, and Gjøvik. There were cities like Trondheim, Fredrikstad and parts of the Oslo region (the capital of Norway), which were not participating health trust. We consider that the remaining wards in Norway who did not participate are to our knowledge not different regarding urban or rural characteristics (T. Ruud, Gråwe, R.W., Hatling, T., , 2006a).

Altogether 3.506 hospitalizations were registered. As the result of incomplete data on IH, 180 cases were excluded. However, 29 cases aged 15-17 were included since not all hospitals in Norway had acute adolescent units available and adult acute psychiatric units could not reject patients seeking admission. Four admissions based on child

protection law or a social law of involuntary admission were coded as IH. The final data set for analyses was thus 3.326 cases.

There were no exclusion criteria.

3.3 Clinical assessments

3.3.1 Admission registration form measurements

For general sociodemographic description, in order to register VH or IH, referring source, admission time and contact with other sources during admission, and measures of symptoms, we developed an Admission registration form for acute psychiatric wards. The Admission registration form “Registrering av opphold i akuttavdeling i psykisk helsevern for voksne / Registration of stay in the emergency department in mental health care units for adults” had 42 variables for admission, and 26 variables for discharge (T. Ruud, Gråwe, R.W., Hatling, T., 2006a).

The Admission registration form included the following eight item areas with altogether 68 variables

A: Referral and admission	(14)
B: Information about the patient	(13)
C: Services received in time prior to admission	(7)
D: Assessment at admission	(8)
E: Investigation and treatment during your stay	(3)
F: Collaboration and coordination	(4)
G: Assessment at discharge	(8)
H: End of the emergency service	(11)

3.3.2 The Health of the Nation Outcome Scales (HoNOS)

The Health of the Nation Outcome Scales (HoNOS) was used to rate the severity of psychiatric problems (T. Ruud, 2002). HoNOS consists of 12

items measuring behaviour, impairment in cognitive functioning, symptoms and social functioning (J. Wing, Bevor, A.S., Curtis, R.H., Park, S.B., Hadden, S., Burns, A. , 1998; J. Wing, Curtis, R.H., Bevor, A.S. , 1999):

The 12 items were the following:

1 overactive, aggressive disruptive or agitated behaviour, 2 non-accidental self-injury, 3 use of alcohol or drugs, 4 cognitive problems, 5 physical illness or disability problems, 6 hallucinations and delusions, 7 problems with depressed mood, 8 other mental or behavioural problems (phobic, anxiety, obsessive-compulsive, mental strain/tension, dissociative, somatoform, eating, sleep, sexual or others), 9 problems with relationships, 10 problems with activities of daily living, 11 problems with living conditions and 12 problems with occupation and activities.

The scale used the following outcome scores; zero (no problem), one (minor problem which do not need action), two (mild problem but definitely present), three (moderately severe problem) to four (severe to very severe problem). The Global Assessment of Functioning (GAF)

3.3.3 The Global Assessment of Functioning (GAF) scales

We used The Global Assessment of Functioning (GAF) scales of axis IV in DSM-IV split version, with symptoms (GAF-S) and functional level (GAF-F) scored separately on a scale from 1 to 100 (American Psychiatric Association, 1987; Goldman, Skodol, & Lave, 1992; G. Pedersen, Hagtvet, & Karterud, 2007). A higher score indicated less symptoms / better functioning. Lower score indicated more severe psychiatric (more psychotic or suicidal) symptoms and lower functioning.

3.3.4 Alcohol and Drug Use.

The Alcohol and Drug Use Scale measures drug and alcohol abuse for a 6 month period prior to admission being: zero (abstinent), one (use without impairment), two (abuse), three (dependency), and four (dependency requiring institutionalization) (K. T. Mueser, Drake, R.E., Clark, R.E., McHugo, G.J., Mercer-McFadden, C., Ackerson, T.H., 1995; K. T. Mueser, Noordsy, D.L., Drake, R.E., Fox, L., 2003; Sederer, 1996).

3.3.5 Referring agencies for psychiatric hospitalization

The following agencies referred patients for admission to psychiatric hospitalization: General Practitioners (in Norwegian: Fastlege), local municipal emergency primary health care clinic (some places in Norway described as out-of-office-hours casualty clinics (in Norwegian: Legevakt)), other psychiatric health care departments (other psychiatric hospitals, district psychiatric centres and psychiatric outpatient polyclinics), and somatic hospitals.

3.3.6 Statistical analysis

For several variables, there were some missing data. Patients arriving at psychiatric emergency wards are often in an unstable state, will not, or are not able to answer all questions and variables in the Admission registration form, or the health personnel failed to collect the information.

Analyses were conducted using the statistical package SPSS (SPSS, 2012) and overall descriptive statistics were used to calculate the mean and standard deviation (SD). T-test and Chi-square were used for testing significance of differences between IH and VH. Logistic regression was used in the analyses of predictors for IH. Due to the large data set, many factors may be identified and complex models may be well estimated. However, the focus here was on the main effects highlighting the most

important trends in the data. Such a parsimonious model may be viewed as an approximation to a more elaborate model for the data. The validity of such an approximation may be checked via goodness of fit measures and residual diagnostics. To achieve this stepwise variable selection techniques with strict criteria ($p\text{-in}=0.01$, $p\text{-out}=0.02$) were used to include a variable in the model. Forward and backward variable selection procedures were used to single out the statistically most important predictors. Initially 32 different prediction variables were candidates for inclusion. Both procedures gave very similar results and the model showed good fit according to the Hosmer–Lemeshow statistic and residual analysis.

In article II and article III, analyses were made using the GLIMMIX module of SAS Academic version 3.3 used for the generalized linear mixed modelling (Schabenberger) As the binary variable of conversion from IH to VH was the outcome variable for all analyses. The SAS GLIMMIX procedure was used for all inferential statistics, using random intercepts for the site to correct for different base-rates at the different sites, and fixed effects for all variables, with logit link-function. All effects are presented as odds ratios (OR) with corresponding 95% confidence intervals. First, individual analyses were performed for each variable, but with random intercepts in order to estimate the unadjusted effects. Secondly, all variables showing unadjusted significant effects on conversion from involuntary to voluntary admission were entered simultaneously, in order to estimate adjusted multivariate effects.

In article II initially 25 variables were used: admission time of day, who referred the patient, prior knowledge of the patient, escorted by the police to the hospital, patient requesting admission, age, gender, marital status, living alone, GAF symptom and functioning, HoNOS scores (9 items), use of drug or alcohol, living accommodation, income source, educational level and appearance of drug use. Out of the 20 sites investigated, there were 11 sites with 11 or more converted from IH to

VH cases, and nine sites had fewer than 11 converted cases and were excluded from the analyses as they precluded good model fit.

In article III a binary variable representing wanting admission (1) or not (0) was the outcome variable in the analyses using generalized linear mixed modelling, using random intercepts for the site to correct for different base-rates at the different sites, and fixed effects for all variables, with logit link-function. All effects were presented as odds-ratios (OR) with corresponding 95 % confidence intervals. Individual analyses were performed for each variable in order to estimate the unadjusted effects. All variables showing unadjusted significant effects on wanting admission were entered simultaneously in the GLIMMIX procedure in order to estimate adjusted multivariate effects.

4 Short summary of papers

4.1 Article 1 – Predictors of involuntary hospitalizations to acute psychiatry

Background: There is little knowledge of predictors for involuntary hospitalizations in acute psychiatric units.

Methods: The Multi-centre study of Acute Psychiatry included all cases of acute consecutive psychiatric admissions in twenty acute psychiatric units in Norway, representing about 75% of the acute psychiatric units during 2005–2006. Data included admission process, rating of Global Assessment of Functioning and Health of the Nation Outcome Scales.

Results: Fifty-six percent were voluntary and 44% involuntary hospitalizations. The police was in contact or transported the patient to hospital in 8% of the VH and 49% of the IH patients.

Involuntary patients were older, more often male, non-Norwegian ethnicity, unmarried and had lower level of education. They more often had a disability pension or received social benefits, and were more often admitted during evenings and nights, found to have more frequent drug abuse and less often responsible for children and were less frequently motivated for admission. Involuntary patients had less contact with psychiatric services before admission. Most patients were referred because of a deterioration of their psychiatric illness.

Regression analysis identified contact with police, referral by physicians who did not know the patient, contact with health services within the last 48 h, not living in own apartment or house, high scores for aggression, level of hallucinations and delusions, and contact with an emergency primary health care clinic / out-of office clinic within the last 48 hours

and low GAF symptom score as predictors for involuntary hospitalization.

Conclusions: IH seems to be guided by the severity of psychiatric symptoms and characteristics of the referred patient such as male gender, substance abuse, and contact with own GP, aggressive behaviour, low level of social functioning and lack of motivation. There was a need for assistance by the police in a significant number of cases. This complexity challenges to the organization of primary and psychiatric health services, and highlights a need to consider better pathways to care.

4.2 Article 2 – Voluntary or involuntary acute psychiatric hospitalization in Norway: A 24 - hour follow up study

Background: The Norwegian Mental Health Care Act states that patients who are involuntarily admitted to a hospital must be reassessed by a psychiatrist or a specialist in clinical psychology within 24 h to decide whether the patient fulfils the legal criteria for the psychiatric status and symptoms. International research on the use of different law processes during acute admission for coercive hospitalization in psychiatry is scarce, and an investigation of Norway's routine reassessment process of involuntarily referred patients may expand knowledge about this aspect of psychiatric treatment.

Methods: The Multi-centre Acute Psychiatry study (MAP) included all cases of acute consecutive psychiatric admissions across twenty Norwegian acute psychiatric units in health trusts in Norway across three months in 2005–06, representing about 75% of the psychiatric acute emergency units in Norway. The incident of conversion from involuntarily hospitalization (IH) to voluntary hospitalization (VH) was analysed using generalized linear mixed modelling.

Results: Out of 3.338 patients referred for admission, 1.468 were IH (44%) and 1.870 were VH. After reassessment, 1.148 (78.2%) remained on involuntary hospitalization, while 320 patients (21.8%) were converted to voluntary hospitalization. The predictors of conversion from involuntary to voluntary hospitalization after reassessment of a specialist included patients wanting admission, higher scores on Global Assessment of Symptom scale, fewer hallucinations and delusions and higher alcohol consumption.

Conclusions: The 24-hour reassessment period for patients referred for involuntary hospitalization, as stipulated by the Norwegian Mental Health Care Act, appeared to give adequate opportunity to reduce unnecessary involuntary hospitalization, while safeguarding the patient's right to VH.

4.3 Article 3 – Patients’ attitudes to psychiatric hospitalization: A national multicentre study in Norway

Background /Objective: To explore patients’ attitudes towards voluntary and involuntary hospitalisation in Norway.

Methods: A multi-centre study of consecutively admitted patients to emergency psychiatric wards over a 3 months period in 2005-06. Data included demographics, admission status (voluntary / involuntary), symptom levels, and whether the patients expressed a wish to be admitted regardless of judicial status. To analyse predictors of wanting admission (binary variable), a generalized linear mixed modelling was conducted, using random intercepts for the site, and fixed effects for all variables, with logit link-function.

Results: The sample comprised 3.051 patients with data of their attitude to hospitalization. 1.232 of these (40.4%) being involuntary hospitalised. As expected 96.5% of the voluntary admitted patients wanted admission, while as many as 29.7% of the involuntary patients stated that they wanted the same. The involuntary patients wanting admission were less likely to be transported by police, had less aggression, hallucinations and delusions, more depressed mood, less use of drugs, less suicidality before admission, better social functioning and were less often referred by general practitioners compared with involuntary patients who did not want admission. In a multivariate analysis, predictors for involuntary hospitalization and wanting admission were, not being transported by police, less aggression and less use of drugs.

Conclusions: Almost a third of the involuntary admitted patients stated that they actually wanted to be hospitalized. It is unclear what this implies, but it seems to be important to ask patients, both before and after admission, thoroughly regarding whether they wish to be hospitalized or not.

5 Discussion

5.1 Main results from our MAP study

We found that 44% of the patients were involuntary hospitalized (either involuntary observation (section 3-2) or involuntary hospitalization with known severe mental illness (section 3-3). From here on described as involuntary hospitalization (IH). The IH patients were older, more often male, non-Norwegian, unmarried and had lower levels of education and more often on a disability pension or social benefits, admitted during evenings and nights and were more often transported by the police to the hospital. IH patients were more likely to have substance abuse, were less often responsible for children, and less frequently motivated for admission. Most patients were hospitalized because of a deterioration of their psychiatric illness. In a multivariate model we found that predictors for IH were contact with police; referral by physicians who did not know the patient; contact with health services within the last 48 hours; not living in their own apartment or house; high levels for aggression, hallucinations and delusions; contact with a municipal emergency clinic within the last 48 hours and low GAF symptom scores.

In Norway, according to the Mental Health Care Act, a psychiatrist or a clinical psychologist must reassess the admitted patient within 24 hours from the time of admission to the hospital, to decide if the mental health status of the patient fulfils the criteria for involuntary hospitalization (IH). Of all the IH patients, 21.8% were converted to Voluntary Hospitalization (VH). The predictors of conversion from IH to VH were patients wanting admission, fewer symptoms (better scores on Global Assessment of Symptom scale), less often hallucinations and delusions and more frequent use of alcohol.

We asked all patients whether they actually wanted admission or not. As expected, the majority of voluntary hospitalized (VH) stated that they wanted admission (96.5%). We found however, that as many as 29.7%

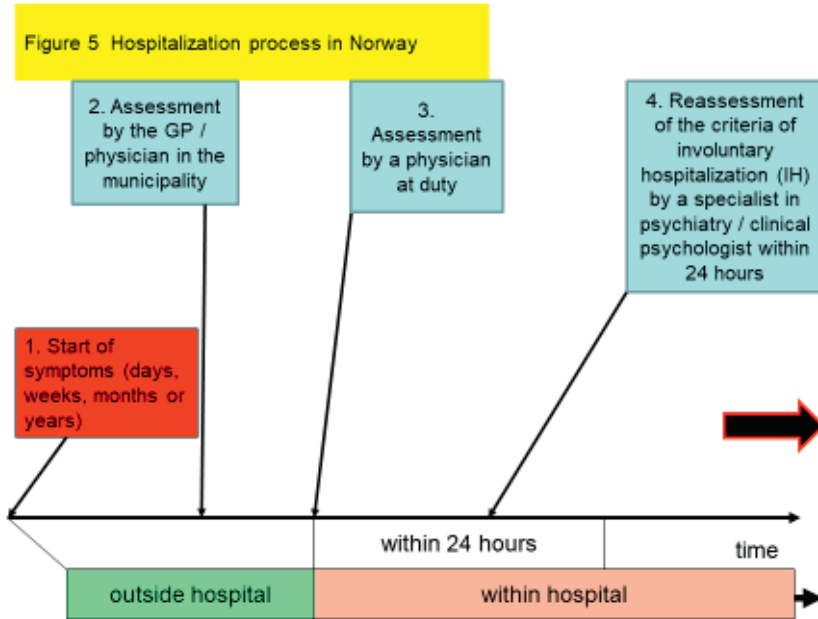
of the IH patients also stated that they wanted admission. These IH patients were more seldom referred from a GP, less transported by police, and had better social functioning, lower levels of aggression, less severe hallucinations and delusions, a more depressed mood, less use of drugs and less suicidality when compared with IH patients who did not want admission. Predictors for IH patients who wanted admission were not being transported by police, less aggression and less use of drugs.

Important results to discuss are; Are our rates of IH comparable to results in other studies? How can we understand the fact that nearly one third of IH patients are converted to voluntary stay after a 24-hour re-evaluation period? Finally, how can we understand the finding that a third of IH patients said that they wanted hospitalization when they were admitted to the psychiatric emergency ward?

5.2 Pathways to psychiatric care - the process of hospitalization starts early.

The process of seeking help for mental health problems often starts weeks, months or even years before a patient is hospitalized (Larsen, Johannessen, & Opjordsmoen, 1998)(Figure 5). This applies to patients who are either admitted for the first time, or it is due to worsening of a mental condition in need of a new admission. We believe different levels can be assumed to exist in this process: the first appearance of symptoms, evaluation at the GP / municipal emergency primary health care clinic, the assessment at intake by a physician during the hospitalization and reassessment by a specialist in psychiatry within 24 hours of admission.

In Norway, the IH patient will be systematically reassessed within 24 hours according to the Norwegian Mental Health Care Act. Before admitted to the hospital and during this process the patient's attitude of wanting admission or not may arise and be under development and even be changed. Unfortunately, we do not have data of the patient's changes in opinion in our study.



The beginning of symptoms

Some patients may realize that “something is wrong” concerning their mental health and seek professional help. However, a considerable number of patients lack insight into the illness (Gilleen et al., 2011; Okai et al., 2007; Raffard et al., 2008; Ramachandran, Ramanathan, Praharaj, Kanradi, & Sharma, 2016). Those patients most strongly associated with incapacity to make decisions were patients with psychosis, severity of symptoms, IH, and treatment refusal (Lepping, 2011).

In such cases, the surrounding environment such as family take action and bring the ill person to the doctor. They may, as caregiver or spouse, experience a process where their attitude towards the patient in the beginning is on supporting the patient to get in contact with health personnel and a GP. Some patients will be grateful for this kind of support. However, other patients may refuse any interference. If family, other health personnel, friends and sometimes colleagues are those who

do not get a proper response from the patient for getting psychiatric help, they may sometimes have to continue with other more negatively charged methods like persuasion and threats, and this may lead to the use of police in order to get the patient to admission and treatment (G. S. Gowda et al., 2019) (Johansen, Carlsen, & Hunskaar, 2011; Johansen, Morken, & Hunskaar, 2012).

At the GP office / municipal emergency primary health care clinic.

In Norway, all patients are entitled to have their own GP (in Norwegian: “fastlege”). This was developed for the Norwegian society by the Municipal Regular GP Scheme in the year 2000 (The Ministry of Health and Social Affairs, 2000). GP’s are working daytime and often know the patients very well, and often they work at municipal emergency primary health care clinics during evenings and nights. Emergency primary health care clinics are open 24/7, and they are staffed by GPs and sometimes other physicians from somatic hospitals who wants to work extra during daytime, evenings and nights. These clinics are “first come first serve” clinics when patients are not able to go to their GP or if the illness is acute. Mostly, the physician will not have previous knowledge of the patient. This assessment will not represent the same continuity of care as compared to the GP who already knows the patient. At the emergency primary health care clinics, the physicians often have limited consultation time, and must decide what to do with the unknown, potentially severely mentally ill, patient here and now. Physicians at emergency clinics may also have less access to the full medical records, and therefore are less likely to be able to consider the patients’ background history. Research in Norway has shown that many physicians working in an emergency primary health care clinic, as an extra job, had less than 5 years of job experiences, and then less experience with IH procedures and understanding of the mental health law (Rotvold & Wynn, 2015a). GPs working in emergency primary health care clinics also experienced fear for personal safety, uncertainty

and working with patients with complex situations with limited information, time and knowledge (Johansen et al., 2011).

Family or friends may transport the patient to the GP or the emergency primary health care clinic, or the patient travels to the clinic or GP by himself / herself. The patient may also due to resistance to visit a physician or because the patient sometimes may have made public disturbance, be transported to the GP or the emergency primary health care clinic by the police (Johansen et al., 2011). The same stakeholders (family and friends) may also continue and follow the patient from the GP / emergency primary health care clinic to the hospital.

Involuntary hospitalizations are described as complex processes which involve many stakeholders (Rotvold & Wynn, 2016). In a Norwegian study of 74 GPs and physicians working at an emergency primary health care clinic who a previous week had admitted an IH patient, the physicians were asked who they believed first detected the patient's need for hospitalization. Results showed that other branches of health services (municipals services / psychiatric home nurses) were the major source in 53% of the cases. Some of these patients could possibly be readmissions, detected by municipal health personnel. Other sources were family 25%, police 17%, friends of the patient 5% and others 5%.

5.3 Rates of IH

5.3.1 National figures in Norway.

Norwegian national referral rates of IH in psychiatric hospitals in Norway were 38% in 2003, 41% in 2005 (P. B. Pedersen, 2006) and 44% in 2006 (SINTEF Helse, 2007).

IH rate after a specialist in psychiatry / clinical psychologist within 24 hours made a reassessment at hospital level were 28% in 2003, 30% in 2005 (P. B. Pedersen, 2006) 32% in 2006 (SINTEF Helse, 2007), 25%

in 2008 (P. B. Pedersen, 2009) and 25% in 2013 (The Norwegian Directorate for Health, 2014).

For all admissions to psychiatric hospitals and district psychiatric centres included, after reassessment by a specialist, IH rate were 27% in 2005) and 27% in 2006 and 21 % in 2008 (P. B. Pedersen, 2009) and 16% in 2013 (The Norwegian Directorate for Health, 2014). As presented, the rates are lower when national rates includes all psychiatric admissions, which include elective and acute admissions, hospitals and district psychiatric centres.

In 2018, there were approximately 48.000 referrals to psychiatric admissions in Norway (R. Bremnes, 2020; R. Bremnes, Skui, H., 2020). They found an annual volume of approximately 12.000 referrals (25%) to involuntary observation (section 3-2) or involuntary admitted with known severe mental illness (section 3-3). Of all IH admissions (hospitals and district psychiatric centres) in 2018, 38% were converted to VH in 2018, compared to our result of 21.8% (hospital admissions only).

The national figures for Norway represented 186 IH admissions per 100 000 inhabitants per year age 16 years and over. The IH patients have actually been detained under duress for up to 24 hours pending the psychiatric specialist reassessment. The rate of IH was nearly the same in 2016 (190/100 000) as in 2018, even after a change in the Mental Health Care Act in 2017 (179/100 000). However, national figures included all admissions, both acute and elective at all psychiatric institutions (psychiatric hospitals and district psychiatric centres) who were eligible to receive IH.

We found that 44% were referred for IH. It is difficult to know if this is a high or a low rate of IH. However, this represented all patient acutely and consecutively hospitalized at psychiatric emergency units. Often, our district psychiatric centres, as part of the specialist health service, receive patients with less severe symptoms on a voluntary basis, but some also

admit IH patients. If these most often VH admissions were included in our study, there would have been a lower total rate of IH.

5.3.2 *International rates of IH.*

Internationally, there are huge variations of IH between and within countries. Some countries report very low rates: Cyprus (2%), Serbia (3%) (Turnpenny, 2017c).

However, mid-range rates: Ireland (10%), Canton Basel in Switzerland (10.6%), Poland (14%) (Turnpenny, 2017c), a more deprived population in inner city Dublin, Ireland 14.1% (2008-2014) (Curley et al., 2016) , 5 hospitals in Portugal (16.2%) (M. Silva et al., 2020).

High rates: Finland (22%), France (24%), two studies in parts of China: (32%) (Yang et al., 2019) and (42%) (Zhou et al., 2015), and Canton Vaud in Switzerland (38%) (Turnpenny, 2017c).

Countries or areas with even higher IH were local hospitals in Moscow, Russia (60%) (Tsygankov, 2013b), and Taiwan nearly (95%) (Wu, 2012b) (figure 2).

Some studies present rates of IH per population. A systematic review of IH in different adult psychiatric hospitals in Norway (2001 – 2016) found that Norway had a relative high rate of IH, on a population base, 135 to 418 / 100 000 inhabitants per year compared to rates in other European countries (Dressing & Salize, 2004; Wynn, 2018). In Norway, after the new Mental Health Care Act of 2017, we could not to admit patient who had not the capacity to consent on a voluntary basis. This patient had to be admitted IH.

We identified no studies with a similar design as our study. Population data show that rates of IH in Europe ranges from two to 282 per 100 000 inhabitants per year (fig 3). However, sometimes these data only represent acute admissions, or only regions. National statistics are not

always available (table 1). Some countries have both public, private, and forensic hospitals. It can be unclear if all types of hospitals are included in the data. Criteria for IH may also differ. Some countries have the danger criteria; others include the need for hospitalization as a criterion (Rotvold & Wynn, 2015b; H. J. Salize & Dressing, 2004).

5.3.3 Characterizations of IH patients

We found that IH patients significantly were more often older, male, non-Norwegian, unmarried, and more often admitted during evenings and nights. In a Swiss study of 8.917 cases during 2013-2015, 10.6% (942) were IH (Arnold et al., 2019). They found similar results: IH patients were often older, of non-Swiss nationality, not married, admitted during nighttime and weekends, and had a diagnosis of schizophrenia spectrum disorders. However, in the Swiss study there were no significant differences between VH and IH patients concerning gender, housing situation, occupational setting, substance use and affective disorder (Arnold et al., 2019).

In a more deprived population in inner city Dublin, Ireland (2008-2014) the IH population had a high rate of patients of single status, VH patients 76.6%, and IH 79.4% (Curley et al., 2016) compared to our study (VH 51.9 and IH 59.3). From the same inner city Dublin study; there were variations in IH rates between three hospitals, explained by gender, marital status and diagnosis (Umama-Agada et al., 2018). However, in a Swiss study from the Canton of Vaud, there were significantly more IH patients who were widowed and they were more likely to be older than the VH group (B. Silva et al., 2018).

Ethnicity may influence IH. In our study, IH patients were more often of non-Norwegian ethnicity. In a study of 1.633 IH admissions in Ireland in 2009, the proportion of IH admissions was higher among Non-Irish (33.9%) compared to patient with Irish ethnicity (12.0%) (Ng & Kelly, 2012). Similar results are found in other countries (Mulder, Koopmans,

& Selten, 2006) (Barnett et al., 2019). Health personnel may have less understanding of patients from other ethnic nationalities because of language- and cultural barriers (Kisely & Xiao, 2018). The physicians' ability to interpret psychiatric symptoms such as delusions and hallucinations may be more difficult. It can also be more challenging to convey other solutions than admission to a psychiatric hospital.

5.4 Predictors of IH

In multivariate analysis, we found six significant predictors of IH. The predictor with highest Odds Ratio was contact with the police, (OR 3.72). This finding has also been reported in a study in Switzerland (B. G. Silva, P. Morandi, S., , 2018), Ireland (Feeney, Umama-Agada, Curley, Asghar, & Kelly, 2020) and Brazil (Mosele, 2018). In Norway, as in most countries, the police are involved when a person behaves aggressively or appears threatening to self or others. The police may be the first official agency at the scene, sometimes before health personnel or ambulance. When the police are suspecting the person to have mental problems, they take the person to a municipal emergency clinic so a physician for symptoms of mental health problems and the need for hospitalization can evaluate the person. We found one comparable study from Switzerland with a large number of cases (5027) (B. G. Silva, P. Morandi, S., , 2018). IH patients were more likely than VH patients to be referred for admission by the police. However, IH patient were more often referred by a GP, a general hospital, a psychiatric hospital, or the justice system. A study from Dublin, Ireland, during a 3.5 years period, of 2.715 patients, 16% were IH (2015-2018). They found that concerning IH the police were involved in 20% of the of all IH admission (Feeney et al., 2020). A smaller study from Brazil of 137 patients, where 71 patients were IH (51.8%) (2012-2013) found that the primary predictors of IH were being brought to hospital by police or ambulance (Mosele, 2018).

The second strongest predictor of IH in our study was that the patients were referred from someone who did not know them (OR 1.50). A number of studies have reported the same. The Swiss study from the Canton of Vaud, found that most of the IH patients were referred by a physician who did not know the patient even as the region had among the highest rates of psychiatrists per 1.000 inhabitants in the world (B. Silva et al., 2018). Similar results were found in another Swiss study from Canton of Zurich where 79% of the referring physicians did not know the patient from prior treatment when they were referred to IH.

A third predictor in our study was if the patient had other contact with health or social services prior to admission in the last 48 hours (OR 1.48). We did not find comparable results other than in a study describing that if the patient had previously been IH at least once the previous year, this was a strong predictor (B. G. Silva, P. Morandi, S., , 2018).

A fourth predictor of IH was patients living in other less stable housing conditions than living in own apartment or house, (OR 1.46). We have not found any study with similar results.

A fifth predictor of IH was a high score on HoNOS aggression, (OR 1.39). This result was supported by a Swiss study of 5.027 patients from the Canton of Vaud in 2015, where they found that a high score on overactive, aggressive, disruptive or agitated behaviour had a OR of 1.37 (B. G. Silva, P. Morandi, S., , 2018). A Chinese study of 797 patients (42% IH) interviewed one week after discharge from 16 psychiatric hospitals in 10 provinces in China (Zhou et al., 2015) also found a high score on aggression as a predictor for IH. A limitation of this study was that the essence of the old Mental Health Care Act in China gave psychiatric patients a low level of protection with human rights, limited guidance for IH, and limited data on rate of IH before the new law was activated. The new law was introduced in 2013, and more than 50% were IH. The study did not have a clear definition on IH, and all data was obtained after discharge. Similar result was also found in a Brazilian

study (Mosele, 2018). Their IH patients had a more aggressive behaviour at admission and during the first 24 hours of hospitalization, but also 73.2% of the patients had a history of physical aggression before admission.

A sixth predictor of IH was a high score on HoNOS hallucinations and delusions (OR 1.20). In the Swiss study from Canton of Vaud they found the same (OR 1.12) (B. G. Silva, P. Morandi, S., , 2018). Severe mental illnesses with symptoms of psychosis including hallucinations and delusions are the main criteria for IH in most Mental Health Care Acts. Several studies have found that psychosis related diagnoses were predictors of IH. An Irish study of 446 patients of deprived inner city Dublin admitted to a single acute psychiatric ward during a 3-year period (2008-2010), IH were 15%. They found a diagnosis of schizophrenia spectrum disorders was the only predictor of IH (Ng & Kelly, 2012). However, based on the same site but extending the period from 2008 to 2014 including 1.099 patients, IH was 14.1%. They found then that predictors for IH was place of origin and male gender. Diagnosis were no longer a significant predictor of IH. However, the study area had a high level of people born outside Ireland, and fewer of them did seek voluntary care, compared to Irish born individuals (Curley et al., 2016). A French study of 363 IH patients hospitalized during one year (2014-2015) at Tours University Hospital concluded that a psychotic syndrome was associated as a predictor for IH (Godet & Niveau, 2018). A Dutch study (a follow up study over two years) of 244 acute psychiatric patients at risk of IH at a psychiatric emergency unit in Amsterdam showed that predictors of a new IH were patients with a previous history of IH (van der Post, Peen, & Dekker, 2014). However, this study had limitations since out of 954 patients who were at risk of IH, many of them did not respond, refused to participate, or were too ill to consent to the study.

Finally, our study showed that low GAF symptom score at intake was a predictor of IH (OR 0.35). We found that IH patients had lower scores on GAF symptoms and functioning at intake. Increase in GAF symptoms

score decreased the OR for IH by a factor of 0.35 per unit. We found no study of adult patients describing the same result. However, it is clinically understandable that IH patients will be presented at admission with severe psychiatric symptoms and then a low GAF symptom score to fulfil the Mental Health Care Act criteria.

5.5 *Is there a reasonable threshold value for IH?*

In order to find out whether the use of IH is in accordance with good clinical practice and the understanding of the law's criteria, a study with a quality control – a sort of gold standard – would need to be carried out. Let us say that a number of consecutively IH were studied in order to decide whether IH was necessary. One needs to define a threshold for determining IH as being beneficial for the patient. The researchers would have to go through the medical records, but also interview patients, relatives and GP's. In other words - we do not know what the mean average rate of IH in a population based on a Mental Health Care Act ought to be.

Public support to the Mental Health Care Act is important. A Norwegian study conducted telephone interviews presenting cases with severe mental health symptoms. The public were asked if they supported IH or not when voluntary interventions had proven to be inadequate (Joa et al., 2017). This public support for IH is also described in a study of patients in a hypomanic or manic state needing treatment (Borgeat & Zullino, 2004). In this study of 449 patients, relatives and caregivers were asked about their opinion based on a clinical vignette with an above-described situation. Up to 60% of respondents (including a majority of patients) supported the use of coercion.

5.5.1 *Reduced rate of IH – a political, pressure group or autonomy-based strategy?*

Every time a person is sent to a hospital against his/her own will, the patient's autonomy will be challenged. Over a long period, there has been a debate in Norway regarding the use and rates of IH and involuntary treatment. Politicians, government officials, human rights organizations, patients and relative organisations and the media have debated the use of IH in psychiatric institutions during the last decades, many of them concluding the rates of IH were supposedly too high (Aftenposten, 1998; Dagbladet, 2011). In addition – there has been a focus on different rates of IH within regions of Norway. However, it is difficult to interpret such findings because there are no studies, so far, which have described different variables like organization of psychiatric treatment on municipal and hospital level, number of available beds per capita, demographic differences, or differences in for example culture in use of IH. From 2012, the Norwegian Ministry of Health and Care Services instructed regional health authorities and local hospitals in Norway to reduce coercion as part of a national health strategy. The Norwegian Ministry of Health and Care Services stated in 2013 the IH rates ought to be reduced by 5% per year (N. Ministry of Health and Care Services, 2013). Yearly, from 2014 until 2018 hospitals were required to continue to reduce IH (N. Ministry of Health and Care Services, 2018). We do not know the empirical data upon which the Norwegian Government based this decision. Could it be higher IH rates in Norway compared to other countries? We have already outlined that mental health legislation is different in different regions and states throughout Europe (de Jong et al., 2016; Georgieva et al., 2019; Gourevitch, Brichant-Petitjean, Crocq, & Petitjean, 2013; Hotzy et al., 2019; T. W. Kallert et al., 2005; H. J. Salize & Dressing, 2004; H. J. Salize, Dressing, H., Peitz, M., 2002; B. Silva et al., 2018; Turnpenny, 2017a) and in other countries (Noguchi et al., 2016; Wu, 2012a; Yang et al., 2019; Zhou et al., 2015).

At the Norwegian national level, the number of referrals for IH was unchanged from 2016 (11.939) to 2018 (11.783) (R. Bremnes, Skui, H.,, 2020). The rates of conversion from IH to VH were both years the same (2016: 38%, 2018: 38%). In Norway, the Mental Health Care Act was changed in 2017. The new criteria introduced in IH was that the specialist had to evaluate the patients' competence for consent to admission. If the patient had competence to consent, and were not in danger for self or others, the patient could not be admitted for IH. The intentions for the lawmakers were to give the patient more autonomy, and hopefully reduce unnecessary IH.

Could there be pressure groups that have influenced the authorities for various reasons? If so, - who are these groups? Where there any risk assessed of the consequences the change of law might give for patient treatment, the relatives' situation, and the situation of society as a whole? I am critical towards the idea that a 5% reduction in IH rates was warranted. I believe this decision was more based upon ideology than science. Obviously, it is important to use as little IH as possible, but there must be a limit to the good of such a reduction. If we go below that threshold, we could harm the patients in need of treatment.

In Norway, we are able to provide treatment, hospitalization, medications, and support for housing and income, regardless of whether patients are wealthy or have medical insurance. In some countries, this is not the case. Studies show that between a quarter to a third of the homeless in the USA have a serious mental illness (schizophrenia, bipolar disorder or severe depression) (Harvard Health Publishing, 2014). If they suffer from illnesses such as psychosis, mania or severe depression they may lack illness insight. In a Norwegian health care system study in 2012, the average cost per individual per year with schizophrenia was 106 thousand USD (Evensen et al., 2016). It is expensive to run hospitals and outpatient clinics. As clinicians, we must be aware of the economic aspects of providing less treatment to mentally ill citizens.

However, some studies have shown that patients, family and health personnel often think that IH is necessary if this is done in the best interest of the patient due to the need for proper evaluation, diagnostic assessment, good psychiatric treatment, and a better life after discharge (Abramowitz et al., 2011; Borgeat & Zullino, 2004; R. A. Brooks, 2006; Guedj et al., 2012; Hayashi et al., 2000; Jankovic et al., 2011; Noguchi et al., 2016; Olofsson & Norberg, 2001). In letters presented in national media written by patients or family members, they express that IH sometimes saves lives and preserves dignity (Alfsen, 2009; Herschel Hardin, 1993), and psychiatric specialists try to reduce IH by giving GPs evenly feedback on their admission practice to hospitals (Paulsen, 2016). It is important that family member organizations and patient organization present their good or bad experiences from psychiatric health care. However, sometimes this criticism is mainly from selective groups who have only negative experiences with psychiatry.

In conclusion, there is much uncertainty over what a gold standard rate of IH might be.

5.6 Conversion to voluntary hospitalization

In Norway the psychiatrist or clinical psychologist has to reassess the IH patient within 24 hours to decide if the patient fulfil the Mental Health Care Law criteria or not. As the next step, we studied to which degree patients stayed as IH after the reassessment that had to be carried out. This is a complex process since some symptoms might change significantly during the first 24 hours of hospitalization due to the fact that the patient might have used alcohol or drugs. We found that 21.8% of IH patients were converted to VH. We found no country that had a similar 24-hours reassessment process as Norway. However, two studies showed similarities when patients are referred for IH, but refused for IH after psychiatric assessment.

In a study from Belgium in 2007 of 346 patients requested for IH, more than 50% were refused after a psychiatric assessment (Lorant, Depuydt, Gillain, Guillet, & Dubois, 2007). In Belgium a public prosecutor have the authority to decide if a patient need to be IH. The public prosecutor have to request a psychiatric assessment in a psychiatric emergency ward. The assessment is carried out or reviewed by a senior psychiatrist. Main criteria for IH is presence of a mental disorder, danger to self or others, urgent need for treatment, refusal for treatment by the patient or a lack of less restrictive alternative forms for care. Results showed that the lack of less restrictive alternatives to care was the most profound criteria for IH. The study concluded that patients with psychosis, non-Belgians, not living in a private household and adults were more likely to be IH because of a lack of a less restrictive alternative form of care.

In 10 member states of the European Union (Austria, Belgium, France, Germany, Greece, Italy, The Netherlands, Portugal, Spain and United Kingdome), a non-medical authority makes the decision for IH, while in five member states (Denmark, Finland, Ireland, Luxembourg and Sweden), the physicians have the decision authority (H. J. Salize & Dressing, 2004). Since development of new mental health care laws are in a continuous process of change, these countries and other countries may make changes concerning assessment procedures and the deciding authority.

In other parts of the world, for example in Taiwan, a Psychiatric Disease Mandatory Assessment and Community Care Review Committee accepted 90% of all patients requested for IH. (Wu, 2012b).

We found that predictors of IH to VH conversion were: the patient did not want admission, had higher scores on GAF / fewer symptoms of mental health problems, lower scores on hallucinations and delusions and more use of alcohol. There are no similar studies for comparison, but one Norwegian study suggested the high number of IH who were converted might be due to the referring physician outside the hospital

feeling pressure to admit the patient on an IH basis (Rotvold & Wynn, 2015a). This kind of pressure to IH could come from the health service, family or police. Is there a tradition in Norway to IH due to lack of housing facilities for patients with severe mental illness, lack of enough beds in hospitals, or lack of municipal adequate follow up and outpatient treatment? Now, we do not have clear answers to these questions.

5.7 Do patients want to be hospitalized?

The final step in our study was to ask 3.051 patients whether they wanted to be hospitalized or not.

Of all patients 69.5% stated they wanted admission when asked by the health personnel in the psychiatric emergency wards. As expected, nearly all of VH patients (96.5%) stated they wanted admission. However, as many as 29.7% of IH patients stated the same.

IH patients who stated they wanted admission were less often referred from a GP, less likely to be transported by the police, had a better GAF symptom and functioning score, less aggressive or agitated behaviour, less symptoms of hallucinations and delusions, more depressed mood, fewer used drugs, and they had less suicidal behaviour before admission.

We found one study from the USA that explored the same question during an acute admission process using the expression of “need for hospitalization”, and a study from England about “attitudes” to IH.

The USA study took place in the states of Pennsylvania and Virginia (1992-1994). Patients consecutively admitted were asked within two days of admission and 2 weeks after discharge whether they thought that they needed hospitalization, 184 patients (69%) were VH and 84 (31%) IH (Gardner et al., 1999). They found similar rates as we did. Of all patients, 76% stated they needed hospitalization, 85% of VH patients, and majority of the IH patients (55%) said they needed hospitalization during an admission interview.

When they asked 40 IH patient after discharge who initially said they needed hospitalization, only 5% changed their opinion two weeks after discharge. When they asked 36 IH patients who at admission believed they did not need hospitalization, 39% changed their attitude two weeks after discharge.

In the UK study with eight mental health trust about attitudes to IH, (2003-2005), 778 IH patients consented to participate and were interviewed at baseline and 396 of these were re-interviewed after one year (Priebe et al., 2009). They found that patients who were not satisfied with the care / treatment at the psychiatric hospitals during the first week of the emergency IH were more likely to be readmitted later on an IH basis. They were also less likely to believe that the first acute admission was correct. Poor general functioning at the time of acute admission was associated with a more positive attitude toward IH care later. Those who remembered well that the acute state of illness had a major impact on their general functioning, said this may have influenced their view of a need for IH. In our study, we had no variables describing insight.

In conclusion, as our study and other research has shown, the timing of asking a patient if they want hospitalization or not may lead to different responses from the patient. Time may also change patients' attitudes because insight may change during hospitalization, and the experience of treatment may influence the result. Our study had no similar follow up question at discharge to measure if IH patients who wanted hospitalization had the same opinion at discharge.

5.8 Future challenges

We found that 44% of all admission to 20 psychiatric emergency units in Norway were IH. However, comparing rates from Norway with other countries proved to be difficult. There are several possible explanations: Weaknesses in national statistical data, lack of representative samples and real differences because of different mental health legislations. Also

different attitudes towards IH in the public, among patients, relatives and health personnel, unequal funding of psychiatric services, different pathways to care and different levels of social welfare within and between countries may influence these data. A mental health system with private and public mental health institutions may also affect the rate of IH.

However, more than one fifth of the IH patients in our study were converted to VH during reassessment within 24 hours by a specialist. This quality process of testing the patient's symptoms and condition against the Norwegian Mental Health Care Act within 24 hours after the patient arrived at the psychiatric emergency ward in itself means that the proportion of IH is reduced. This ensures that those patients who do not meet the law's criteria are quickly either transferred to a voluntary further stay, or discharged because they then want to. In this way, the patient's autonomy is safeguarded.

Our result showing that nearly one third of the IH patients stated that they wanted to be hospitalized raises the question of whether the opinion of the patients are taken seriously in the process of hospitalization. Would we have a different result if the GP has used more time to discuss the admission and other possibilities before the patient is decided to be IH?

Are our results from 2005-2006 valid today? We see that there has been a legal adjustment with the introduction of consent competence in new legislation from the autumn of 2017. Nevertheless, admission to compulsory mental health care (IH) is not reduced, rather stable or perhaps increasing. The Østenstad Law Committee contains a kind of zero vision for coercion in psychiatric treatment (The Norwegian Directorate of Health, 2019). In the same way that serious chronic somatic disorders require hospitalization and intensive treatment, it can be argued that the same is true for severe mental disorders with the need for involuntary hospitalization (IH) (Malkomsen, 2022).

Future challenges may be: Coercion in relation to public health ethics has been expressed as: “*Early intervention in mental health seeks to improve the wellbeing of as many people as possible, by intervening at an early stage in the onset of illness, or by taking preventative action in ‘at risk’ populations* (McKeown, 2019b).” Could we reduce the rate of acute admissions by intervene at an earlier stage of the development of the patients severe mental health? This change the rate of IH? Some researchers have put forward several scenarios for future mental health: Patient driven services without coercion, modified social contexts with focus on patients social and living context, virtual mental health care by online and virtual technology using an avatar, and partners to the poor by access to the provision of care regulated on the basis of social disadvantage (Giacco et al., 2017). My question to this kind of mental health care system would be: Would patients with less insight and severe psychotic symptoms under such a regime get better treatment with less IH?

Researchers have questioned if different mental health care laws and the interpretation of these laws are the reason for unequal levels of IH in different countries. In a recent study of incidence of IH between 2008 and 2017 in 22 countries (Europe, Australia and New Zealand), they found that a higher incidence of IH was associated with a larger number of inpatient beds, higher Gross Domestic Product per capita, health care spending per capita, a higher proportion of foreign-born individuals in a population, and lower rate of absolute poverty (Sheridan Rains et al., 2019). The study did not find that other country level demographics, economic, health-care delivery indicators and characteristics of the legislative system were associated to annual IH rates. In Norway, for example, number of in-patient beds have been reduced from 8011 in 1990, 5370 in 2005, to 3582 in 2020.

5.9 Criticism of interpretation of results

A limitation in our study was the lack of follow up questions to get information on the set of arguments the IH patient who wanted admission had, or the reasons why some VH patients did not want admission. We had a discussion during the planning of the study with a possibility for more direct patient questions. However, our principle investigator had contact with the Norwegian Social Science Data Services and the Regional Ethics Committee. They responded saying if we added more variables, we would need a letter of consent from the patient. The result of this may be patients with known severe mental illness would refuse to participate.

5.10 Recent developments

5.10.1 CRPD

During the last decade we have seen an increased national and international focus on the reduction in the use of coercion in psychiatry (Dagbladet, 2011). This discussion has been partly driven by The United Nations Convention on the Rights of Persons with Disabilities (CRPD) Assembly in 2006 and the UN - nations ratification process of the charter (United Nations, 2006). The United Nations Convention on the Rights of Persons with Disabilities (CRPD) was adopted by the United Nations General Assembly in 13 December 2006 (United Nations CRPD, 2006). CRPD is an international treaty that identifies the rights of persons with disabilities as well as the obligations on States parties to the Convention to promote, protect and ensure those rights. CRPD is signed by 177 UN members (May 2019) including Norway (ratified in 2013). The main purpose of the CRPD is to ensure that disabled people have equal opportunity to realize their human rights and to reduce obstacles that make this difficult. CRPD recognizes “*the equal rights of all persons with disabilities to live in the community with choices equal to others*” (Molodynski, Khazaal, & Callard, 2016) (United Nations, 2006). The

Convention is important for psychiatric services because it focus on human rights, and does not accept torture and other cruel, inhuman or degrading treatment or punishment.

The CRPD is considered “*the most up-to-date international legal instrument specifically tailored to stipulate the rights of persons with disabilities. Such persons are taken to include those with serious mental disorders*” (Szmukler, 2019). Szmukler further states, “*The discrimination against people with mental illness in conventional mental health law is being increasingly recognized, raising fundamental questions about justifications for compulsion.*”

The CRPD requires the signing UN member states to replace regimes of “substitute decision making” with regimes of “supported decision-making.” It has been argued that it is the interest of psychiatry to reduce its reliance on coercion and implement alternative ways of support for the psychiatric patient (Puras & Gooding, 2019). However, some authors dispute the CRPD with conflict between the right to life (CRPD § 10) versus the right of health (CRPD § 25) in relation to seriously mentally ill patients (Steinert, 2019). An example would be a deeply depressed patient who want to take his/her life, but when treated – using coercion (including IH) will thank the therapist for being alive when not ill anymore - the “thank you” theory mentioned by Gardner (Galderisi, 2019; Gardner et al., 1999).

Challenges have been made to the CRPD proposal such as restrictions in governments ability to intervene to protect the interest and rights of disabled persons (Appelbaum, 2019). An interpretation of this is: People with a major depression who intend to end their lives, psychotic patients who think food is poisoned and will not eat, and bipolar patients in a mania use all their financial resources could not be hospitalized against their will if the CRPD is interpreted too restrictive. Appelbaum present a new critique of the CRPD saying, “*Protecting vulnerable people does not constitute discrimination – indeed ignoring their vulnerability may*

be discriminatory.” He therefore suggest that CRPD needs amendments to address these conflicts between autonomy and ignoring vulnerable people. Several other authors have expanded this discussion (Bartlett, 2019; Flynn, 2019; Funk & Drew, 2019; Galderisi, 2019; Puras & Gooding, 2019; Steinert, 2019; Szmukler, 2019). Following this new debate about the understanding of CRPD, an important issue could be; should the need for care and treatment be raised to a higher valued ethical level than autonomy itself, concerning patients with loss of insight and in danger for self or others? If so, what implication will the present understanding of CRPD be for the society and the individual when patients do not receive adequate psychiatric hospitalization, care and treatment? If the Government refrains from treating psychiatric patients without insight into their disease and allow them to “manage on their own,” then on the one hand you will save hospital expenses, but will you actually inflict additional costs on society both financially and in other ways over time?

5.10.2 Changes in Norwegian Mental Health Care Law

The criteria for IH in Norway has changed from our first Mental Health care Act in 1848 where the focus was that madness was a medical condition (Da Silva Øvregard, 2020).

The first revision in 1961 stated that the main criteria for IH was a serious mental illness. The additional criteria were either that IH was best for the patient, or necessary for public order and safety, or for reasons of possible cure or significant improvement in hospital treatment. The second revision in 1999 described IH as problematic and that the use of it should be regulated and limited. The main criteria was not changed - a serious mental illness. However, a new additional criterion was that the patient had to be a danger to self or others' lives and health, and it was demanded that voluntary mental health care had been tried out or is obviously pointless.

The CRPD ratification in the United Nations had focus on the competence to consent to treatment. If the patient had the competence to consent, even with a serious mental disorder, the patient could not be IH unless he/she was a danger to self or others. With effect from 1 September 2017, the Mental Health Care Act in Norway was revised and the conditions for compulsory mental health care were tightened (The Norwegian Directorate of Health, 2017b). The change laid in the introduction of a competence-based model. In practice, this entails a requirement for lack of consent competence as a condition for compulsory observation (section 3-2), compulsory mental health care (section 3-3), and treatment without own consent for all patients who do not pose a danger to their own lives or the lives or health of others. The amendments to the law will contribute to increased self-determination and the rule of law. The introduction of conditions for lack of consent competence shall contribute to less coercion.

Patients who have capacity to give informed consent may refuse to accept offers from mental health care. Patients, who after a period of treatment recover consent competence, may terminate the processing at its own request. The change may first have the effect that the IH period will be shorter, including shorter periods for patients who are on an involuntary outpatient commitment order. At the same time, the change in the law entails an increased awareness that patients who lack consent competence cannot be treated "voluntarily". In isolation, this could lead to a small increase in the number of IH decisions.

In Norway, 2005- 2018 the rates of IH (compulsory observation section 3-2 and compulsory mental health care section 3-3) of all patients admitted ranged from 25% to 38% after specialist reassessment. The rates of referrals to IH that were converted to VH after reassessment of a specialist ranged from 22% to 38% (The Norwegian Directorate of Health, 2003, 2007b, 2008b, 2009b, 2020; The Norwegian Directorate of Health / Bremnes, 2019) (Appendix 13 Table 4). From 2016 to 2017 the number IH was reduced, but increased again in 2018. The reduction

applied to the latter part of 2017, and was assumed to be related to stricter conditions for compulsory mental health care after the introduction of capacity to give informed consent criteria in September 2017 (R. Bremnes, Skui, H.,, 2020).

In 2019 a new law proposal for all areas of coercion in mental health, somatic health on both level of specialist care and municipal care were under review (The Norwegian Directorate of Health, 2019). The Government received hearings from all over the nation in 2020, and the result of this is still not presented to the public.

5.11 Future prospective

To hospitalize someone involuntary is the last working tool we have in order to secure that the patient with severe psychiatric illness receives treatment. A recent registry-based observational study of 4.55 million Norwegians listed to their GP, showed that with a personal GP, there is greater continuity of care, lower mortality rates, fewer hospitals admissions and fewer referrals to specialist health care if (Baker et al., 2011; Barker, Steventon, & Deeny, 2017; Sandvik, Hetlevik, Blinkenberg, & Hunskaar, 2021). These findings will definite affect the importance of the GPs role, and hopefully prevent unnecessary IH admissions. A future study could be interviewing GP's who have IH patients who said they wanted hospitalization. What were their reasons for doing so?

The psychiatric hospitals work every day to minimize the use of IH if appropriate. However, there are still challenges. In the United States, due to private financed health care, patients who have received treatment for loss of consciousness, cardiac arrest, or traumatic injury in situations they cannot consent to treatment, may receive so-called "surprise medical bills" (Morris & Kleinman, 2020). There are examples of patients who are forcibly admitted to psychiatric hospitals and receive compulsory treatment also receiving such bills. This is a serious example

of the conflict of autonomy and lack of insight into one's own mental illness in contrast to health economic patient systems.

However, research has shown that if hospitals focus on increasing patients' satisfaction with care (van der Post, Peen, Visch, et al., 2014), let the patient make advanced statements (de Jong et al., 2016), make a Joint Crisis Plan (Lamb et al., 2019; Morant et al., 2017) and develop Crisis Resolution Teams (Morant et al., 2017; Wheeler et al., 2015) this may reduce the use of IH. In a meta-analysis of 13 RCT studies (based on literature search on several databases) including 2970 patients have shown that advanced statements about the patients future desires concerning how to handle a crisis and involvement of family showed the best outcome by reducing IH with 23% (de Jong et al., 2016). Meta-analysis of RCTs focusing on Community Treatment Orders (CTO's), compliance enhancement (including treatment adherence therapy) and integrated treatment (augmentation of standard care) found no significant IH reduction.

Other promising interventions are: rapid clinical and risk assessment when in a crisis, early involvement of senior clinicians, Assertive Community Treatment (ACT), advanced directives - patient's wishes regarding treatment are recorded in the patients journal in advance, independent advocacy, involvement of patients and families, allow routine extended visiting hours, all patients in seclusion be reviewed by senior staff regularly and legislative and policy changes (Molodynski et al., 2016; Schottle et al., 2019).

6 Methodological considerations

6.1 Choice of clinical instruments

6.1.1 Admission registration form

The Admission registration form was made in several joint conferences where all the MAP participating psychiatric emergency unit sites were present. There were comprehensive discussions over variables we wanted to include. In addition, the discussions focused on not having too many variables because the units would not be able to collect and deliver enough data. Finally, the Admission registration form was a consensus supported by all participating sites.

6.1.2 The Health of the Nation Outcome Scales (HoNOS)

The HoNOS scale was introduced in 1992 to improve the health and social functioning of the mentally ill people in The UK (James, Painter, Buckingham, & Stewart, 2018). The Royal College of Psychiatrists developed the scales and the scales have been evaluated as reliable and valid. There has been a process of a review of the HoNOS (James et al., 2018). Psychometric properties concerning validity and reliability has been questioned (R. Brooks, 2000). However in a later reviews it was concluded that HoNOS perform adequately or better on validity and reliability (Pirkis et al., 2005). HoNOS was mainly developed to measure outcomes for adults with mental illness as a routine measurement of clinical variables, monitored at admission and discharge, to describe quality and effectiveness of mental health services (Pirkis et al., 2005). The scales were divided into four subscales: behaviour (scales 1-3), impairment (4-5), symptoms (6-8), and social (9-12). It has been used

mainly in Britain, Australia, New Zealand, Canada, Denmark, France, Germany and Norway.

6.1.3 *The Global Assessment of Functioning (GAF)*

The GAF scale was chosen for this study because the Norwegian health authorities in the year 2000 made it mandatory for hospitals to use GAF score at intake and discharge as an outcome measure. (T. Ruud, 2015).

However, GAF scores based on information about the patient the last 7 days has been criticized. Critical arguments have been that GAF score will fluctuate from day to day and the scale does not identify the differences between a mental illness and a medical disorder that causes psychiatric symptoms (Nall, 2017).

Other studies concluded that even if raters had only one brief training session, satisfactory reliability was obtained for total GAF score and for symptom and disability measures (Jones, Thornicroft, Coffey, & Dunn, 1995) (Støre-Valen, 2015). However, the score in GAF symptoms and function were based on information from the last seven days, evaluating the most severe symptoms and function deficits as the score level.

Psychometric properties concerning validity and reliability has shown that GAF split version scores from a single rater holds acceptable reliability, and can be used in a clinical setting, but two persons rating increase reliability. This is often problematic in an ordinary clinical acute psychiatric setting (G. Pedersen et al., 2007; Soderberg, Tungstrom, & Armelius, 2005).

6.1.4 *Alcohol and Drug use scale (“Drake scale”)*

Evaluation of the patients’ use of alcohol and drugs were based on the Alcohol and Drug use scale (“Drake Scale”) measuring drug and alcohol abuse for a six months period prior to admission. These items were included in the Admission registration form. The Clinical Rating Scales

(Clinician Alcohol Use Scale and Clinician Drug use Scale) which we complemented in the Admission registration form in this study describing alcohol and drug use over the past six months, rating the worst period, has achieved high sensitivity and specificity (K. T. Mueser, Drake, R.E., Clark, R.E., McHugo, G.J., Mercer-McFadden, C., Ackerson, T.H., 1995).

There are others scales which could have been used for example AUDIT (Alcohol Use Disorders Identification Test) and DUDIT (The Drug Use Disorders Identification Test), but they are more comprehensive, and the study needed a more simple test to evaluate the patients drug use in an short and easy way (Berman, 2003; World Health Organization).

6.2 Strengths and limitations of data collection

Strengths

Our study had a large consecutive sample with 3.506 cases.

It was a highly representative sample since the twenty participating health trusts covered all geographical regions in Norway with both an urban and rural population. Within each site, mostly the catchment area was both urban and rural. The 20 sites represented about 75% of all psychiatric emergency wards in Norway.

Patients were recruited from a national relatively uniform public health care system located across over Norway with governmental funding for psychiatric care.

Patients were consecutively recruited during the 3-month inclusion period at each site. There were no attrition since none was excluded due to diagnosis, mental health symptom or functioning status.

There were no exclusion criteria – since patient did not have to make a personal consent – patients with all kinds of psychiatric symptoms in need of acute admission was included.

National meetings were held, with representatives from all sites, and each site with a local project leader, had an equal ownership in the development of the Admission registration form. Due to several meetings between the sites, there was an equal understanding of the registration of the variables.

Every site, with its own local project leader worked on the registration process using case vignettes made by the national project leader. At every site, there were training sessions for the measure HoNOS, GAF and the Admission registration form. GAF was an instrument all units had to use before the study was implemented due to national requirements.

There were no known organizational changes or law changes of the national psychiatric health care system during the inclusion period.

As far as we know, more than 95% of all admissions during the inclusion periods of three month were included in the study (T. Ruud, Gråwe, R.W., Hatling, T., , 2006b).

Limitations

We do not know anything of the about 25% of psychiatric emergency units in Norway who did not participate. Non-participating areas were part of Oslo, the capital of Norway with mostly urban areas. Other hospitals not included were in the south-eastern region of Østfold and the city of Trondheim, both with catchment areas urban and rural.

The sites had different sizes of catchment area giving unequal number of cases to the study.

Due to the size of the study, we had many people collecting the data; no reality test was carried out. We used case vignettes to train employees in the use of the Admission registration form, HoNOS, GAF and Alcohol and drug use scale. Concerning reliability, we did not have any test-retest of case vignettes.

The HoNOS scale and the Admission registration form were new for the psychiatric health personnel to use when the study started.

There were many raters with different medical education and work experience (psychiatric nurses, nurses and nurse assistants, resident physicians, psychiatrists and clinical psychologists) who carried out the data collection.

Concerning start and end of the study, the inclusion period was in the autumn of 2005 and the spring of 2006, but the sites did not have a common date to start and stop including cases during a 3-month period.

7 Ethical considerations

The Project Manager and Principle Investigator made an application for exemption from the duty of confidentiality in order to include all consecutive admitted patients (Regional Committee for Medical Research Ethics Eastern Norway (REK1), 2004) (T. Ruud, 2005).

We argued that it was important to obtain data for all admissions including those who were admitted against their will (IH). These patients represents persons with severe mental disorders, acute psychoses, acute suicidal danger, confusion, intoxication, aggression and are in immediate need of help. It was of great social importance to implement the study and to include those patients who did not have capacity to give informed consent. There was a meeting with the committee leader in REK about this, and REK agreed with the exemption in a letter (Engedal, 2004).

The same arguments were presented to Social and Health Directorate, and Norwegian Centre for Research Data (NSD) (Social and Health Directorate, 2005).

The MAP project planned to collect data by a questionnaire to the patients as well, but NSD said in this case the MAP project could not include those who would not answer such a questionnaire. In the MAP project we therefore chose to prioritize including everyone, and therefore dropped the patients questionnaire (Norwegian Social Science data Services (NSD), 2005, 2009).

8 References

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Appendix A - Admission Registration form / HoNOS / Alcohol and Drug Use Scale / GAF



Registrering av opphold i akuttavdeling i psykisk helsevern for voksne

Utfyllingstidspunkt

Skjemaet er utformet slik at side 1-2 (A-D) vanligvis kan fylles ut i forbindelse med innleggelse, og side 3-4 (E-H) i forbindelse med utskrivning. Vurderinger under D og G gjøres for anført tidspunkt. Resten kan fylles ut når informasjonen er tilgjengelig. Det brukes egne skjema for akutte og avdelinger for ungdom.

A Henvising og innleggelse

- A01 Henvising mottatt ddmmaa**
- A02 Innleggelsesdato ddmmaa**
- A03 Innleggelse klokkeslett tt**
- A04 Inntak som øyeblikkelig hjelp** (innen 24 t) 1Ja 2Nei
- A05 Hvem som henviste pasienten?**
- 1 Pasienten selv / pårørende
 - 2 Fastlegen / allmennlege
 - 3 Allmenn legevakt
 - 4 Psykiatritjeneste i kommunen
 - 5 Psykiatrisk legevakt
 - 6 Somatisk poliklinikk / avdeling
 - 7 Poliklinikk / dagtilbud ved DPS
 - 8 Døgnavdeling ved DPS
 - 9 Psykiatrisk poliklinikk / dagtilbud ved sykehus
 - 10 Psykiatrisk døgnavdeling ved sykehus
 - 11 Privatpraktiserende psykiater/psykolog
 - 12 Politilege / tilsynslege i fengsel / rettsvesen
 - 13 Annet:

- A06 Henvisingen er fra**
- 1 Noen som kjenner og følger opp pasienten
 - 2 Noen som har hatt liten/ingen kontakt med pasienten

- A07 Henvisningsformalitet (satt av henviseende instans)**
- 1 Frivillig
 - 2 Tvungen observasjon (§3-6)
 - 3 Tvungent psykisk helsevern (§3-7)
 - 4 Dømt til tvungent psykisk helsevern
 - 5 Barnevernsloven
 - 6 Sosialtjenesteloven

- A08 Inntaksformalitet ved spesialistvedtak (paragrafvurd.)**
- 1 Frivillig (§2-1.1)
 - 2 Kontrakt (§2-2.1)
 - 3 Tvungen observasjon uten døgnopphold (§3-8.2)
 - 4 Tvungen observasjon med døgnopphold (§3-8.1)
 - 5 Tvungent psykisk helsev. uten døgnopph. (§3-1.2)
 - 6 Tvungent psykisk helsev. med døgnopph (§3-1.1)
 - 7 Dømt til tvungent psykisk helsevern (§5-3.1)
 - 8 Barnevernsloven
 - 9 Sosialtjenesteloven

- A09 Pasienten ble fulgt til innleggelsen av politi**
- 1 Ja 2 Nei 3 Ukjent

- A10 Pasienten ønsket selv innleggelse**
- 1 Ja 2 Nei 3 Ukjent

- A11 Har pasienten tidligere hatt kontakt med psykisk helsevern? Gjelder helse psykisk helsevern samlet sett.**
- 1 Ja (polikl. eller døgnopph.) 2 Nei 3 Ukjent

Om innlagt på nytt innen ett år fra forrige utskrivning:

- A12 Siste utskrivning var fra**
- 1 Psykiatrisk akuttavdeling ved sykehus
 - 2 Annen psykiatrisk avdeling ved sykehus
 - 3 Døgnavdeling ved DPS

- A13 Dato siste utskrivn. ddmmaa**

- A14 Denne reinnleggelsen var planlagt** 1 Ja 2 Nei

Prosjekt nr

Institusjon

Kodenummer for pasienten

Kodenummer for oppholdet

Avdeling

B Opplysninger om pasienten

- B01 Fødselsår**
- B02 Kjønn** 1 Mann 2 Kvinne
- B03 Sivilstatus**
- 1 Ugift
 - 2 Gift
 - 3 Samboende
 - 4 Enke / enkemann
 - 5 Separert / skilt
 - 6 Ukjent
- B04 Bor alene**
- 1 Ja
 - 2 Nei
 - 3 Ukjent

- B05 Pasientens etniske bakgrunn (se veiledningen)**
- 1 Norsk 2 Annen :

- B06 Dersom ikke norsk** 1 Ja 2 Nei 3 Ukjent
- 1 Nødvendig med tolk i samtaler
 - 2 Asylsøker, søknad behandles
 - 3 Asylsøker, søknad avslått
 - 4 Har vært utsatt for krig/tortur

- B07 Pasienten har barn under 18 år**

- B08 Om pasienten har omsorg for barn**
- 1 Pasienten har ikke omsorg for barn
 - 2 Pasienten har deltids omsorg for barn
 - 3 Pasienten har heltids omsorg for barn

- B09 Hjelp/tiltak til barn som pasienten har deltids eller heltids omsorg for**
- 1 Barna har ikke behov for hjelp/tiltak
 - 2 Barna får hjelp/tiltak
 - 3 Barna trenger hjelp/tiltak, men får det ikke
 - 4 Kjenner ikke til om barna trenger hjelp/tiltak

- B10 Bolig**
- 1 Leilighet/bolig
 - 2 Servicebolig uten tilsyn
 - 3 Omsorgsbolig m. noe tilsyn
 - 4 Omsorgsbolig, heldøgnsstils.
 - 5 Bor i institusjon
 - 6 Bor hos foreldre/andre
 - 7 Hospits eller lignende
 - 8 Ingen bolig/ bostedsløs
 - 9 Asylmottak
 - 10 Fengsel
 - 11 Ukjent

- B11 Hovedinntektskilde**
- 1 Lønnet arbeid/næringsdriv.
 - 2 Forsørgt
 - 3 Studielån
 - 4 Arbeidsløshetstrygd
 - 5 Syke / rehabiliteringspenger
 - 6 Attføringspenger
 - 7 Uførepensjon
 - 8 Alderspensjon
 - 9 Sosial stønad
 - 10 Annet:
 - 11 Ukjent

- B12 Status for nåværende psykiske lidelse**
- 1 Psykisk lidelse som har debutert i løpet av siste 12 mndr
 - 2 Ny sykdomsperiode etter periode uten sykdom
 - 3 Forverring av langvarig vedværende psykisk lidelse
 - 4 Ukjent / annet:

- B 13 Høyeste fullført utdanning**
- 1 Grunnskole 2 Videreg. skole 3 Høgsk./Universitet

- D03 GAF siste uke alvorligste Sympt** **Funk**

C Tjenester mottatt i tiden før innleggelsen

C01 Bruk av psykisk helsevern (inkl. DPS og sykehus) siste 12 måneder Sett ett kryss i hver kolonne

	Poliklinisk/ambulant	Døgnopphold
1 Ikke noe	<input type="checkbox"/>	<input type="checkbox"/>
2 En kortere periode	<input type="checkbox"/>	<input type="checkbox"/>
3 Flere kortere perioder	<input type="checkbox"/>	<input type="checkbox"/>
4 Lengre periode(r) eller vedvarende	<input type="checkbox"/>	<input type="checkbox"/>
5 Ukjent	<input type="checkbox"/>	<input type="checkbox"/>

C02 Grad av oppfølging siste 3 mndr. før innleggelsen

Ett kryss innen de tre første kolonner på hver linje, samt eventuelt i kolonne 4

	1 Ja	2 Nei	3 Ukjent	4 Avbrutt før innl.
1 Stod på venteliste ved poliklinikk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Poliklinisk behandling DPS/sykehus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Dagbehandling DPS/sykehus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Ambulant team DPS/sykehus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Behandling ved rusteam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Fastlege eller annen primærlege	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Psykiatriteam/sykepleie i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Fagperson ved sosiale tjenester	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Hjemmetjenester	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Kommunalt dagtilbud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C03 Kontakt og støtte siste 48 timer før innleggelsen

Det kan settes flere kryss

<input type="checkbox"/> 1 Fastlege	<input type="checkbox"/> 7 Kriseseng/lavterskel
<input type="checkbox"/> 2 Legevakt	<input type="checkbox"/> 8 Somatisk poliklinikk/avd.
<input type="checkbox"/> 3 Fagpers. i kommune	<input type="checkbox"/> 9 Støtte fra pårørende
<input type="checkbox"/> 4 Psyk. poliklinikk	<input type="checkbox"/> 10 Støtte fra venner
<input type="checkbox"/> 5 Akutteam	<input type="checkbox"/> 11 Kontakt med politiet
<input type="checkbox"/> 6 Annet ambulant team	<input type="checkbox"/> 12 Annet:

C04 Psykofarmaka pasienten stod på fram til innleggelsen

Se veiledningen når det gjelder andre medikamenter

Kryss på C07 om pasienten ikke bruker medikamenter.

Medikamentnavn	mg /døgn

C05 Depotinjeksjon	døgn før innl

C06 1 Frivillig 2 I kraft av vedtak om tvangsbehandling

C07 Hvordan pasienten tok psykofarmaka siste to uker

- 1 Stod ikke på noen psykofarmaka
- 2 Tok psykofarmaka stort sett som foreskrevet
- 3 Tok psykofarmaka delvis som foreskrevet
- 4 Tok ikke /stort sett ikke psykofarmaka som foreskrevet
- 5 Ukjent

D Vurdering ved innleggelsen

D01 HoNOS Se veiledningen. Skåret ved: _____

Ved ukjent settes det ikke noe kryss

	0	1	2	3	4
1 Overaktiv eller aggressiv atferd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Selvskaide som ikke skyldes uhell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Drikking eller bruk av stoff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Kognitive problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Fysisk sykdom / funksjonshemming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Hallusinasjoner og vrangforestillinger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Senket stemningsleie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Andre psykiske plager (merk 1 bokstav)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A fobisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B angst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C tvangsproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D stress/spenninger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E dissosiative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F somatoforme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G spiseproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H søvnproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I seksuelle pr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J andre probl.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Problem med forhold til andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Problem med dagliglivets aktiviteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Problem med boligforhold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Problem med yrke og aktiviteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D02 Bruk av alkohol og stoff Se veiledn.

	1	2	3	4	5
1 Bruk av alkohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Bruk av medikamenter / narkotika	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(GAF-skåringer skrives på side 1, ved "minste basis datasett")

D04 Om pasienten var ruset ved innleggelsen

- 1 Ingen mistanke om pasienten var ruset
- 2 Mistanke om pasienten var ruset
- 3 Pasienten var åpenbart ruset

D05 Prøver på rusmiddelemisbruk

	Alkohol	Stoff
1 Ikke funnet grunn til å ta prøve	<input type="checkbox"/>	<input type="checkbox"/>
2 Ikke tatt prøve fordi pasienten nektet	<input type="checkbox"/>	<input type="checkbox"/>
3 Prøve tatt og var negativ	<input type="checkbox"/>	<input type="checkbox"/>
4 Prøve tatt og var positiv (påvist)	<input type="checkbox"/>	<input type="checkbox"/>

D06 Selvmordsfare i forkant av innleggelsen (oppgitt i henvisning eller avdekket under samtaler ved innleggelse)

- 1 Ingen selvmordstanker/planer
- 2 Passive dødsønsker, ikke aktive selvmordstanker
- 3 Tanker om å ta sitt eget liv, ikke konkrete planer
- 4 Konkrete selvmordsplaner
- 5 Gjort villet egenskade med ingen/liten intensjon om å dø
- 6 Gjort villet egenskade med stor/sikker intensjon om å dø
- 7 Ukjent

D07 Selvmordsfare i avdelingen (vurdert ved inntak)

- 1 Høy
- 2 Moderat
- 3 Lav
- 4 Ingen
- 5 Usikkert

D08 Hovedgrunn for innleggelsen slik teamet/avd. ser det Sett kryss på 1 - 3 linjer

- 1 Få gjennomført diagnostikk og utredning
- 2 Få etablert / bedret behandlingsrelasjon
- 3 Få satt igang / endret behandling
- 4 Få kontroll over destruktiv atferd overfor seg selv / andre
- 5 Ta vare på pasienten / beskytte / skjerm / avlaste
- 6 Få bedret pasientens kontakt / relasjoner med familie
- 7 Ha trygg ramme for bearbeiding av traumer / konflikter

E Utredning og behandling under oppholdet

E01 Undersøkelser som er gjort 1 Ja 2 Nei 3 Nektet

1 Strukturert diagnostisk intervju *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Skåringskalaer utfra intervju **	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Psykologisk testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 System.kartlegg. av livssituasjon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 System.kartlegg. av sos.nettverk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Ekstra somatisk undersøkelse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Blodprøver, laboratorieprøver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Bildediagnostikk av hjernen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 EEG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*) I så fall strek under: SCID1, SCID2, MINI, SCAN, CIDI, SPIFA

**) I så fall understrek: PANSS, BPRS,

Se veiledning om samarbeid med andre om punkt 4-7 ovenfor.

E02 Behandling og tiltak som er gitt under oppholdet
Se veiledningen om

Sett ett kryss på hver linje

	Ikke noe	Under 1 g/uke	1-2 g/uke	Over 2 g/uke
	1	2	3	4
1 Samt. psykiater/psykologspesialist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Samtaler m/ annen lege/psykolog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Samtaler med primærkontakt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Samtaler med sekundærkontakt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Samtale med sosionom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Samtalegruppe ved avdeling/team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Familie- / nettverkssamtaler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Møte i ansvarsgruppe i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Andre samarbeidsmøter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Med på aktiviteter i gruppe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Individuelt tilrettelagte aktiviteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Trening i å fungere sosialt/praktisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 Fysisk trening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Ja	Nei		
31 Behandling med psykofarmaka	<input type="checkbox"/>	<input type="checkbox"/>		
32 Serummåling av psykofarmaka	<input type="checkbox"/>	<input type="checkbox"/>		
33 Systematisk vurd. av bivirkninger	<input type="checkbox"/>	<input type="checkbox"/>		
34 ECT	<input type="checkbox"/>	<input type="checkbox"/>		
41 "Fotfølging" i avdelingen	<input type="checkbox"/>	<input type="checkbox"/>		
42 Skjerming på avsnitt / eget rom	<input type="checkbox"/>	<input type="checkbox"/>		
43 Bruk av belter / fiksering	<input type="checkbox"/>	<input type="checkbox"/>		
44 Politiet deltatt under oppholdet	<input type="checkbox"/>	<input type="checkbox"/>		
51 Pasient med på behandlingsmøte	<input type="checkbox"/>	<input type="checkbox"/>		
61 Bistand med økonomi/bolig/annet	<input type="checkbox"/>	<input type="checkbox"/>		
71 Annet 1:	<input type="checkbox"/>	<input type="checkbox"/>		
72 Annet 2:	<input type="checkbox"/>	<input type="checkbox"/>		

E03 Eventuelle endringer og vedtak

	Dato dd mm	
1 Omgjort observasjon til tvungen psyk.h.v.	<input type="checkbox"/>	<input type="checkbox"/>
2 Opphevet vedtak om tvangsinnleggelse	<input type="checkbox"/>	<input type="checkbox"/>
3 Vedtak om tvangsbehandling	<input type="checkbox"/>	<input type="checkbox"/>
4 Tvangsbehandling iverksatt	<input type="checkbox"/>	<input type="checkbox"/>
5 Vedtak om skjerming	<input type="checkbox"/>	<input type="checkbox"/>
6 Vedtak angående kontakt med omverden	<input type="checkbox"/>	<input type="checkbox"/>

E04 Eventuelle klagesaker og utfall

	1 Ja	2 Nei
1 Pasienten klaget på tvangsinnleggelsen	<input type="checkbox"/>	<input type="checkbox"/>
2 Pasienten fikk medhold på klagen	<input type="checkbox"/>	<input type="checkbox"/>
3 Pasienten klaget på tvangsbehandlingen	<input type="checkbox"/>	<input type="checkbox"/>
4 Pasienten fikk medhold på klagen	<input type="checkbox"/>	<input type="checkbox"/>

F Samarbeid og koordinering

F01 Hvem har teamet hatt kontakt med under pasientens behandling?

Sett ett kryss på hver linje

	Ikke aktuelt	1	2	3	4	5
		Samtale / møte	Annent kontakt	Ikke kontakt	Ukjent	
1 Familie/pårørende	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Venner av pasienten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Verge/hjelpverge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Støttekontakt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Fastlege/annen primærlege	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Sykepleier/fagpers. i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Sosialkontor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Dagsenter i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Kommunalt sykehjem/institusjon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Barnevernet / barnevernsinst.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Privatprakt. psykiater/psykolog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Annen fast terapeut annet sted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Psykiatrisk sykehusavdeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Distriktpspsykiatrisk senter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 BUP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Somatisk sykehusavd./poliklinikk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Rusteam, rusinstitusjon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Arbeidsgiver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Skole/utdanningssted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Aetat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Trygdekantor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Polit, fengsel, krim.omsgorg i frihet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Sykehusprest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Annen instans:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F02 Tilbud pasienten har fra før, - eller har fått nå under oppholdet

Sett ett kryss på hver linje

	Hadde fra før	1	2	3	4	5
		Fått under opph.	Ikke blitt tilbudt	Pas ønsker ikke	Ukjent	
1 Fastlege	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Behandlingsplan i psyk. helsevern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Individuell plan i følge loven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Kriseplan (del av individuell plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Hovedbehandler i psyk. helsevern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Koordinator i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Ansvarsgruppe i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Kontaktperson i kommunen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F03 Pasienten har ut fra vår vurdering behov for individuell plan 1 Ja 2 Nei 3 Usikkert

Besvares uavhengig av om pasienten har individuell plan.

F04 Opphold i ulike poster under avdelingsoppholdet

Fyller ut i avdelinger med mer enn en post *

Basisenhet* Skriv tydelig	Fra d d m m	Til d d m m

*) Kan også føre opp parallell kontakt ved akutteam eller annet, samt om pasienten i en periode har vært dagpasient.

G Vurdering ved utskrivning / avslutning

G01 HoNOS Se veiledning. Skåret ved: _____

Ved ukjent settes det ikke noe kryss

	0	1	2	3	4
1 Overaktiv eller aggressiv atferd	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Selvskada som ikke skyldes uhell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Drikking eller bruk av stoff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Kognitive problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Fysisk sykdom / funksjonshemming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Hallusinasjoner og vrangforestillinger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Senket stemningsleie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Andre psykiske plager (merk 1 bokstav)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A fobisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F somatoforme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B angst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G spiseproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C tvangsproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H søvnproblem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D stress/spenninger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I seksuelle pr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E dissosiative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J andre probl.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Problem med forhold til andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Problem med dagliglivets aktiviteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Problem med boligforhold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Problem med yrke og aktiviteter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G02 GAF (alvorligste, se veil.) **Sympt** **Funk**

Se veiledning om utskrivning skjer på innleggelsesdagen.

G03 Diagnose (ICD-10)

Diagnose (ICD-10)

Diagnose (ICD-10)

G04 Selvskading og vold under opphold/akuttbehandlingen 1 Ja 2 Nei 3 Ukjent

1 Selvmordsforsøk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Selvskading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Fysisk angrep på andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Utsatt for fysisk angrep fra andre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G05 Vurdering av tidspunkt for utskrivning

1 Utskrives tidligere enn planlagt for å frigjøre plass

2 Utskrives tidligere enn planlagt av annen grunn

3 Utskrives på planlagt tidspunkt

4 Utskrives seinere enn planlagt pga ventet på tilbud

5 Utskrives seinere enn planlagt av annen grunn

G06 Boligsituasjon ved utskrivning

1 Ingen bolig

2 Samme bolig som før innleggelsen

3 Har fått bolig under oppholdet

4 Ukjent

G08 Er det trolig at innleggelsen kunne ha vært unngått dersom alternative tilbud hadde vært tilgjengelig?

1 Nei, innleggelsen kunne neppe ha vært unngått

2 Ja, dersom følgende hadde vært gjort (skriv stikkord):

Bare for internt bruk (Registreres ikke elektronisk)

Behandlerende lege her: _____

Fastlege for pasienten: _____

H Utskriving/overflytting eller avslutning

H01 Denne delen H fylles ut ved følgende situasjon

1 Utskriving (inkl overflytting) fra akuttavdelingen

2 Pasienten er fortsatt i avd. 2 måneder etter innleggelse, og akuttbehandlingen regnes da i prosjektet som avsluttet.

Dato for utskrivning eller dato for avslutning av akuttbehandling: _____

H02 Utskrivningsdato ddmåå

H03 Utskrivning klokkeslett tt

H04 Avslutningsdato * ddmåå

H05 Hvem som skal gi tilbud videre til pasienten

Det kan settes flere kryss. Strek i så fall under hovedkontakt.

1 Pasienten ønsket ikke oppfølging

2 Fastlege / annen primærlege

3 Psykiatritjenester i kommunen

4 Sosiale tjenester / sosialkontor

5 Dagsenter i kommunen

6 Kommunal sykehjem / institusjon

7 Poliklinikk

8 Dagavdeling

9 Ambulant team

10 Akuttavdeling ved DPS

11 Annen døgnavdeling ved DPS

12 Psykiatrisk akuttavdeling ved sykehus

13 Annen psykiatrisk døgnavdeling ved sykehus

14 Privatpraktiserende psykiater / psykolog

15 Somatisk poliklinikk / avdeling

16 Rusteam / rusinstitusjon

17 Barnevernet / barnevernsinstitusjon

18 Asylmottak

19 Fengsel

20 Politilege / tilsynslege i fengsel / kriminalomsorg i frihet

21 Uavklart / ukjent/ annet:

H06 Om pasienten skal følges opp ved annen instans, hva har vært gjennomført av kontakt før overføringen?

Det kan settes flere kryss.

1 Henvisningsbrev er sendt

2 Telefonkontakt med dem som skal følge opp

3 Møte med dem som skal følge opp

4 Pasienten har fått time / tid ved ny enhet

5 Pasienten har fått tildelt ny behandler (navngitt)

6 Pasienten besøkt ny enhet / møtt ny behandler

H07 Hvordan utskrivning skjer

1 Pasienten utskrevet etter avtale

2 Pasienten utskrevet uten avtale (f eks avbrøt behandl.)

3 Pasienten tok livet sitt

4 Pasienten døde av annen årsak

H08 Psykofarmaka pasienten står på

Står ikke på noen psykofarmaka ved utskrivning/avslutning. Se veiledningen når det gjelder andre medikamenter.

Medikamentnavn	mg /døgn

H09 Depotinjeksjon _____ døgn før utskr

H10 Frivillig 2 I kraft av vedtak om tvangsbehandling

H11 Utskrivningsparagraf

1 Frivillig utskrivning (§ 2-1.1)

2 Tvungent psykisk helsevern uten døgnoophold (§ 3-1.2)

3 Overføring til videre tvungent psykisk helsevern (§ 4.10)



Multisenterstudie av akuttpsykiatri (MAP) 2005

Prosjektleder Torleif Ruud
Telefon 9136 2750
Epost: torleif.ruud@sintef.no

Veiledning for utfylling av skjema om opphold ved akuttavdelinger i psykisk helsevern for voksne, - for bruk i multisenterstudien i 2005

Generell veiledning om utfylling av skjemaet

Se skjemaet side 1 øverst til venstre om tidspunkt for utfylling.

Skjemaet fylles ut av pasientens hovedbehandler i samarbeid med andre som også har kontakt med pasienten.

I tillegg til denne veiledningen på to sider om utfylling av registreringsskjemaet, må en også ha skåringsskjemaene for HoNOS, GAF og alkohol/stoff og ha lært seg å bruke disse.

Hvilke pasienter som inkluderes

Det vises til informasjon for det enkelte sted som deltar i multisenterstudien. Vanligvis er det alle pasienter som innlegges i løpet av et tidsrom på 3 måneder eller mer.

Pasientene følges så gjennom oppholdet, slik at siste del av skjemaet fylles ut ved utskrivning, eller når akuttbehandling avsluttes selv om pasienten ikke skrives ut fra avdelingen.

Når pasienten ikke er utskrevet etter 2 måneder

Dersom pasienten er lenger enn 2 måneder i avdelingen, vil vi i denne undersøkelsen definere det slik at den akutte behandlingen da er avsluttet, og siste del av skjemaet fylles ut. Dette tidspunktet er valgt ut fra at de aller fleste opphold i akuttavdelinger avsluttes innen 2 måneder.

Bruk av skjema versjon A eller B

Versjon A av registreringsskjemaet brukes som standard. I dette skjemaet registreres det en del datoer. Versjon B der datoer ikke registreres, forutsetter at en regner ut tidsrom i stedet for å skrive datoer. Versjon B skal bare brukes dersom dette er avtalt mellom lokal prosjektleder og SINTEF.

Koder for prosjekt, institusjon og pasient

Lokal prosjektleder oppgir kode for prosjekt, institusjon og avdeling.

Kodenummer for pasienten skal være et unikt nummer for pasienten, men som ikke kan identifisere pasienten utenfor institusjonen (ikke fødselsnummer). Lokal prosjektleder gir regler for dette og oppbevarer en liste med nøkkel til hvilket nummer som gjelder hvilken pasient. Om det fylles ut skjema for flere opphold for samme person i registreringsperioden, skal disse skjemaene ha samme kodenummer her.

Kodenummer for behandlingsepisoden skal være et unikt nummer som gjelder dette oppholdet. Om det fylles ut skjema for flere opphold for samme person i registreringsperioden, skal disse skjemaene ha forskjellige kodenummer her.

Når pasienten mottar tjenester fra flere steder

To enheter som samarbeider tett (f eks en avdeling og et akutteam) kan fylle ut hvert sitt skjema, men skal bruke samme kodenummer for pasienten eller notere koblingen. Vi vil da i samarbeid med de lokale prosjektledere avklare hvordan dette skal håndteres i bearbeiding og analyser.

Tips om registrering av minste basis datasett

For å forenkle samordningen med de data som institusjonen er forpliktet til å registrere om hver pasient ("minste felles datasett"), er GAF ved innleggelse plassert på side 1, selv om det hører hjemme under D på side 2. En kan bruke side 1 (ev kopi) som grunnlag for registrering av "minste basis datasett".

Hvem skal fylle ut hvilke deler av skjemaet

Noen deler av skjemaet kan fylles ut av kontorpersonalet, men det meste må fylles ut av de fagpersoner som har kontakt med og kjenner pasienten og tilbudet som gis. Diagnoser og skåringer av alvorlighetsgrad (HoNOS, GAF) kan med fordel fylles ut eller kvalitetssikres av lege/psykolog, men erfarne psykiatriske sykepleiere kan også lære å skåre. De som skårer HoNOS og GAF bør ha fått opplæring i dette.

Skåringenes pålitelighet er viktig i denne undersøkelsen, siden sammenligning mellom ulike steder/avdelinger/team forutsetter at en bruker skåringsskalaene på samme måte. Det er derfor ønskelig at ikke flere fagfolk enn nødvendig gjør skåringene, og det er ønskelig at disse deltar i en testing av pålitelighet ved å skåre en del pasientvignetter.

Vi har ikke laget detaljerte regler for hvem som skal fylle ut skjemaet eller de ulike felt, siden rutine for dette må integreres i rutiner og arbeidsfordeling på det enkelte sted. Lokal prosjektleder og avdelingsledelsen kan eventuelt søke råd om dette fra oss og fra andre avdelinger som deltar.

Utfylling ved innleggelsen (side 1-2)

A Henvisning og innleggelse

A02+A03 Innleggelsesdato og klokkeslett gjelder tidspunkt da pasienten kom til avdelingen (eller der en møtte pasienten). Klokkeslett rundes ned til siste hele klokkeslett (f eks 23 i timen før midnatt og 00 i timen etter midnatt).

A04 Øyeblikkelig hjelp. Vurderingen av dette regnes ut fra det tidspunkt avdelingen (vanligvis vakthavende lege) fikk henvendelse pr telefon eller på annen måte.

B Opplysninger om pasienten

B05 Pasientens etniske bakgrunn: Komplisert punkt. Skriv ett eller flere stikkord om dette, så vil vi kode kategorier i ettertid. Eksempler på stikkord kan være etnisk bakgrunn, tid siden kom til Norge, om foreldre ulike etnisk bakgrunn etc.

B08 Omsorg for barn: Kryss på 3 om både 2 og 3 gjelder.

B10 Bolig med tilsyn: Gjelder fast tilsyn uansett timer/døgn.

C Tjenester mottatt i tiden før innleggelsen

C03 Annet ambulant team kan f eks være psykoseteam.

C04 Psykofarmaka: Her inkluderes sovemedisiner, smertestillende, thyroxin og medikamenter mot bivirkninger.

D Vurdering ved innleggelsen

D01 HoNOS: Følg instruksene på skåringsskjema for HoNOS på to egne sider. Skalaer en ikke kan besvare, settes åpent (= skåring 9). Ved inntak skåres HoNOS i samsvar med den vanligste bruk, altså mest alvorlige problem i problemområdet siste 2 uker før inntak.

D02 Bruk av alkohol og stoff: Skåres ut fra skalaer på eget ark. Gjelder siste 6 måneder (ikke siste to uker som HoNOS).

D03 GAF: Skåres ut fra skalaer på to egne ark. Gjelder alvorligste symptomer eller funksjonssvikt siste 7 dager.

Utfylling ved utskrivningen (side 3-4)

E Utredning og behandling under oppholdet

Undersøkelser: Om ett eller flere av punktene 4-7 er gjort av andre (f eks primærlege) i et samarbeid, settes det også ja for dette, samt at dere skriver en A ved siden av kryssset.

E02 Behandling: Det kan være en fordel å ajourføre avkryssinger her under oppholdet, slik at ikke deler av tilbudet blir glemt om den som fyller ut ved avslutning ikke vet om alt.

Med **behandlingsmøte** mener vi et tverrfaglig møte der behandlingsteamet (de som deltar i behandlingen) drøfter status og gjør faglige vurderinger om hvordan behandlingen bør legges opp videre. Dette kan være et eget møte om en enkelt pasient, eller et møte der flere pasienter drøftes.

"Annet" kan brukes til å ta med viktige deler av opplegget som ikke er dekket av punktene ovenfor, - fortrinnsvis elementer som gjelder mange pasienter i avdelingen.

F Samarbeid og koordinering

F01 Samarbeid og kontakt: Noen former for samarbeid registreres på E02, men da i liten grad hvem en har hatt samarbeid med, som registreres her på F01. Med annen kontakt menes telefon, videokonferanse og skriftlig.

F04 Opphold ved ulike poster (basisenheter): Det vil være nyttig å se på hvordan fordeling av opphold er på ulike poster (basisenheter) for ulike pasientgrupper. Dette er en enkel måte å registrere dette på. Bruk de kodene som vanligvis brukes for postene.

Om en pasient er dagpasient en tid (f eks noen dager før utskrivning), kan dette markeres ved at dere fordeler oppholdet i posten å to linjer og skriver "dagpas" i tillegg til koden for posten for det tidsrommet dette gjelder.

Skjemaet brukes også til å notere bruk av lavterskeltilbud som ledd i behandlingen ved et akutteam.

G Vurdering ved utskrivning / avslutning

Se H dersom pasienten **ikke** er utskrevet etter 2 måneder.

G01+G02 HoNOS: Følg instruksene på skårings skjema for HoNOS på to egne sider. Skalaer en ikke kan besvare, settes åpent (= skåring 9). HoNOS ved utskrivningen skåres ut fra en **vurdering av pasientens tilstand på dette tidspunktet**, og **ikke** basert på siste to uker slik som ved innleggelsen.

G02 GAF: Skåres ut fra skalaer på to egne ark. Gjelder alvorligste symptomer eller funksjonssvikt. GAF ved utskrivningen skåres ut fra en **vurdering av pasientens tilstand på dette tidspunktet**, og **ikke** basert på siste uke slik som ved innleggelsen.

Dersom pasienten utskrives på innleggelsesdagen og det ikke har skjedd noen endring i tilstanden, settes skåringene på HoNOS og GAF lik skåringene ved innleggelsen. Men dersom det på noen områder har skjedd klare endringer, skåres disse slik en vurderer at det er ved utskrivningen.

H Utskrivning eller avslutning av akuttbehandlingen

Om pasienten **ikke** er skrevet ut innen 2 måneder, svares det 2 på H01, H04 fylles ut i stedet for H02+H03, og H05-H07 og H11 fylles ikke ut. H08-H10 og alle deler under G fylles ut (eventuelt med unntak av G06) ut fra vurderingene gjort 2 måneder etter innleggelsen.

NB: Se vedlagte skårings skjema for HoNOS, bruk av alkohol/stoff, og GAF.

Elektronisk registrering av opplysningene på skjemaet

Lokal prosjektleder gir informasjon om utfylling og bruk av skjema. De steder der en har valgt å registrere data lokalt, gjøres dette i et opplegg som SINTEF Helse har utformet. Andre steder har valgt å sende papirskjema til SINTEF Helse i Oslo for elektronisk registrering der.

Data fra alle steder som deltar i prosjektet vil bli bearbeidet av SINTEF Helse, slik at alle får tilbake både resultatene om egen virksomhet og data om andre for sammenligning.

Avdelingen med det lokale prosjektet vil kunne bearbeide og bruke sine egne data, samt delta i samarbeid i nettverket om resultater og publisering. Dette samarbeidet vil delvis bli koordinert av SINTEF Helse.

Lokal prosjektleder har mer detaljert informasjon om dette.

HoNOS Health of the Nation Outcome Scales

HoNOS – Health of the Nation Outcome Scales

Norsk versjon april 2002 (korrigert desember 2002)

Oppsummering av instruksjon for skåring

- 1) Skår hver skala (problemområde) i rekkefølge fra 1 til 12.
- 2) Ikke ta med informasjon som er skåret på et tidligere punkt, med unntak av punkt 10 som skåres ut fra en samlet vurdering.
- 3) Skår det MEST ALVORLIGE problem som har forekommet i løpet av perioden som skåres (de siste to ukene, om ikke annet er bestemt)
- 4) Alle skalaene har denne graderingen:
0= Ingen problem
1= Lite problem som ikke krever tiltak
2= Mildt problem, men avgjøret tilstede
3= Moderat alvorlig problem
4= Alvorlig til svært alvorlig problem
Skriv 9 hvis ukjent

1. Overaktiv, aggressiv, forstyrrende eller agitert atferd

- Inkluder slik atferd uansett årsak (f.eks. rusmiddel, alkohol, demens, psykose, depresjon etc.)
- Inkluder ikke bisarr atferd som skal skåres på skala 6.

- 0 Ingen slike problemer i perioden som skåres.
- 1 Irritabilitet, krangler, rastløshet etc. som ikke krever noe tiltak.
- 2 Inkluder aggressive faktorer, dytting eller plaging av andre, trusler eller verbal aggresjon, mindre skade på gjenstander (f.eks. knust kopp eller vindu); atferd som er markert overaktiv eller agitert.
- 3 Fysisk aggressiv mot andre eller dyr (mindre enn ved 4), truende atferd, mer alvorlig overaktiv atferd eller ødeleggelse av ting.
- 4 Minst ett alvorlig fysisk angrep på andre eller på dyr, ødeleggelse av ting (f.eks. ildspåsetting), alvorlig skremmende eller uanstendig atferd.

2. Selvskaide som ikke skyldes uhell

- Inkluder ikke selvskaide ved uhell (f.eks. på grunn av demens eller psykisk utviklingshemning). Det kognitive problemet skal skåres på skala 4 og skaden på skala 5.
- Inkluder ikke sykdom eller skade som er en direkte konsekvens av stoffalkohol-bruk skåret på skala 3 (f.eks. levercirrose eller skade på grunn av fyllekjøring skal skåres på skala 5).

- 0 Ingen slike problemer i perioden som skåres.
- 1 Flyktige tanker om å gjøre slutt på alt, men liten risiko; ingen selvskaide.
- 2 Mild risiko i perioden; inkluderer ufarlig selvskaide (f.eks. risting på håndleddet).
- 3 Moderat til alvorlig fare for forsettelig selvskaide i perioden; inkluderer forberedelser (f.eks. samle opp tabletter).
- 4 Alvorlig selvmordsforsøk og/eller alvorlig forsettelig selvskaide i perioden.

3. Problemdrikkning eller bruk av rusmiddel

- Inkluder ikke aggressiv/destruktiv atferd som skyldes alkohol eller rusmiddel, skåret på skala 1.
- Inkluder ikke fysisk sykdom eller handicap som skyldes bruk av alkohol eller rusmiddel, som skal skåres på skala 5.

- 0 Ingen slike problemer i perioden som skåres.
- 1 Noe overdreven bruk, men innen sosiale normer.
- 2 Tap av kontroll over drikking eller bruk av rusmiddel, men ikke alvorlig tilvenning.
- 3 Markert trang til eller avhengighet av alkohol eller rusmiddel med hyppig tap av kontroll, tar risiko når påvirket.
- 4 Ufør på grunn av alkohol/rusmiddelproblem.

4. Kognitive problemer

- Inkluder problem med hukommelse, orienteringsevne og forståelse uansett hva slags lidelse de er forbundet med: psykisk utviklingshemning, demens, schizofreni etc.
- Inkluder ikke forbigående problem (f.eks. bakrus) fra bruk av alkohollusmiddel, som skal skåres på skala 3.

- 0 Ingen slike problemer i perioden som skåres.
- 1 Mindre problem med hukommelse eller forståelse (f.eks. glemmer navn av og til).
- 2 Milde men klare problem (f.eks. har gått seg bort på et kjent sted eller ikke kjent igjen en person en kjenner); i blant forvirret overfor enkle beslutninger.
- 3 Betydelig desorientert for tid, sted eller person; forvirret av dagligdage hendelser; talen er noen ganger usammenhengende.
- 4 Alvorlig desorientert (f.eks. ikke i stand til å kjenne igjen slektninger); risiko for ulykker; uforståelig tale; tåkete eller stuporøs.

5. Problemer med fysisk sykdom eller funksjonshemming

- Inkluder sykdom eller funksjonshemming uansett grunn som begrenser eller hindrer bevegelse, svekker syn eller hørsel, eller på annen måte forstyrrer personlig fungering.
- Inkluder bivirkninger av medikamenter; virkninger fra bruk av stoffalkohol; fysiske handicap som resultat av ulykker eller selvskaide i forbindelse med kognitive problemer, promillekjøring etc.
- Inkluder ikke mentale eller atferdsmessige problem, skåret på skala 4.

- 0 Ingen fysiske helseproblemer av betydning i perioden som skåres.
- 1 Mindre helseproblemer i perioden (f.eks. forkjølelse, ufarlig fall etc.)
- 2 Fysisk helseproblem som medfører mild innskrenkning i bevegelighet og aktivitet.
- 3 Moderat grad av innskrenket aktivitet på grunn av fysiske helseproblemer.
- 4 Fullstendig eller alvorlig grad av ufarhet på grunn av fysiske helseproblemer.

6. Problemer forbundet med hallusinasjoner og vrangforestillinger

- hallusinasjoner og vrangforestillinger uansett diagnose.
- Inkluder merkelig og bisarr atferd forbundet med hallusinasjoner eller vrangforestillinger.
- Inkluder ikke aggressiv, destruktiv eller overaktiv atferd som skyldes hallusinasjoner eller vrangforestillinger, skåret på skala 1.

- 0 Ingen tegn til hallusinasjoner eller vrangforestillinger i perioden.
- 1 Noe merkelige eller besynderlige overbevisninger som ikke er i samsvar med kulturelle normer.
- 2 Vrangforestillinger eller hallusinasjoner (f.eks. stemmer, syner) er tilstede, men er i liten grad plagsomme for pasienten eller manifestert i bisarr atferd, dvs. klinisk tilstede men mildt.
- 3 Markert opptatt av vrangforestillinger eller hallusinasjoner, forårsaker mye plager og/eller viser seg i åpenbar bisarr atferd, dvs. moderat alvorlig klinisk problem.
- 4 Mental tilstand og atferd er på en alvorlig og negativ måte påvirket av vrangforestillinger eller hallusinasjoner, med alvorlig innvirkning på pasienten.

7. Problem med senket stemningsleie

- Inkluder ikke overaktivitet og agitasjon, skåret på skala 1.
- Inkluder ikke selvmordstanker eller selvmordsforsøk, skåret på skala 2.
- Inkluder ikke vrangforestillinger eller hallusinasjoner, skåret på skala 6.

0 Ingen problemer forbundet med senket stemningsleie i perioden som skåres.

- 1 Tungtsindig; eller mindre endringer i stemningsleie.
- 2 Mildt men avkjort deprimert og plaget (f.eks. skyldfølelse, tap av selvfølelse).
- 3 Depresjon med urimelig selvbebreidelse, opptatt av følelse av skyld.
- 4 Alvorlig eller svært alvorlig depresjon, med skyldfølelse eller anklager mot seg selv.

8. Andre mentale eller atferdsmessige problem

- Skår bare det mest alvorlige kliniske problemet som ikke er vurdert på skalaene 6 og 7:
- Spesifiser type problem ved å skrive rett bokstav: A fobi, B angst, C tvangslidelse, D mentalt stress/spenninger, E dissosiativ, F somatoform, G spiseproblemer, H søvnløshet, I seksuelt problem, J annet problem (spesifiser)

0 Ingen tegn til noen av disse problemene i perioden som skåres.

- 1 Bare mindre problemer.
- 2 Et problem er klinisk tilstede i mild grad (f.eks. pasienten har en grad av kontroll).
- 3 Av og til alvorlige anfall eller plager, med tap av kontroll (f.eks. må unngå helt angstskapende situasjoner, tilkalle en nabo for hjelp etc.), dvs. moderat alvorlig grad av problem.
- 4 Alvorlig problem som dominerer de fleste aktiviteter.

9. Problemer med forhold til andre

- Skår pasientens mest alvorlige problem forbundet med aktiv eller passiv tilbaketreking fra sosiale relasjoner, og/eller ikke-støttende, destruktive eller selv-ødeleggende relasjoner.

0 Ingen slike problemer av betydning i perioden som skåres.

- 1 Mindre ikke-kliniske problemer.
- 2 Klare problemer med å etablere eller opprettholde støttende relasjoner: pasienten klager og/eller problemene er åpenbare for andre.
- 3 Vedvarende store problem på grunn av aktiv eller passiv tilbaketreking fra sosiale relasjoner, og/eller på grunn av relasjoner som gir liten eller ingen trøst eller støtte.
- 4 Alvorlig og plagsom sosial isolasjon på grunn av manglende evne til å kommunisere sosialt og/eller tilbaketreking fra sosiale relasjoner.

10. Problemer med dagliglivets aktiviteter

- Skår funksjonsnivået innen dagliglivets aktiviteter (ADL) samlet sett (f.eks. problemer med grunnleggende aktiviteter innen egenomsorg som spising, vasking, kle på seg, bruk av toalett; og komplekse ferdigheter som budsjettering, organisere hvor en skal bo, arbeid/beskjeftigelse og rekreasjon, bevegelse og bruk av transportmidler, handling, egenutvikling etc).
- Inkluder eventuell manglende motivasjon for å bruke muligheter for egenhjelp, siden dette bidrar til et generelt lavere funksjonsnivå.
- Inkluder ikke manglene muligheter for å gjøre bruk av intakte evner og ferdigheter, som skal skåres på skalaene 11-12.

0 Ingen problemer i perioden som skåres; god evne til å fungere på alle områder.

- 1 Kun mindre problemer (f.eks. ustelt, uryddig).
- 2 Adekvat egenomsorg, men større mangel på evnen til å utføre en eller flere komplekse ferdigheter (se ovenfor).

3 Store problem innen ett eller flere områder av egenomsorg

- (spising, vasking, kle på seg, bruk av toalett) så vel som stor mangel på evner til å utføre flere komplekse ferdigheter.
- 4 Alvorlig svikt eller manglende funksjonsevne på alle eller nesten alle områder for egenomsorg og komplekse ferdigheter.

11. Problemer med boligforhold

- Skår det generelle nivået av problemer med kvaliteten på boligforhold og daglig husholdningsrutine.
- Er de grunnleggende nødvendighetene tilfredsstillende (varme, lys hygiene)? Finnes det hjelp til å mestre handikap og muligheter til å bruke ferdigheter og utvikle nye?

• Skår ikke selve funksjonsnivået, som er skåret på skala 10.

- **N.B:** Skår pasientens vanlige boligforhold. Hvis pasienten er i en akuttavdeling, skal en skåre den boligen pasienten har utenfor institusjonen. Hvis en ikke har informasjon om dette, skårer en 9 (ukjent).

0 Bolig og boligforhold er akseptable; er til hjelp for å holde eventuelt handikap skåret på skala 10 på et lavest mulig nivå, og gir støtte for selvhjelp.

- 1 Boligen er rimelig akseptabel selv om det er mindre eller forbigående problemer (f.eks. ikke ideell beliggenhet, ikke den boligtype en foretrekker, liker ikke maten).
- 2 Problemer av betydning med ett eller flere aspekter ved boligen og/eller systemet (f.eks. begrenset utvalg; personale eller de en bor sammen med har liten forståelse for hvordan en kan begrense handikap eller hvordan en kan hjelpe til å bruke og utvikle nye eller intakte ferdigheter).
- 3 Plagsomt mange alvorlige problemer med boligen (f.eks. noen grunnleggende nødvendigheter mangler); boligen har minimale eller ingen hjelpemidler for å bedre pasientens uavhengighet.
- 4 Boligen er uakseptabel (f.eks. mangel på grunnleggende nødvendigheter, pasienten er i fare for å bli kastet ut, "uten tak over hodet", eller boligforholdene er på andre måter utålelige) og gjør pasientens problem verre.

12. Problemer med yrke og aktiviteter

- Skår det generelle nivået av problemer med kvalitet på omgivelsene på dagtid. Finnes det hjelp til å mestre handikap, og muligheter for å vedlikeholde og forbedre ferdigheter i forhold til arbeid og fritidssysler? Vurder faktorer som stigma, mangel på kvalifisert personale, tilgang på støttende tilbud (f.eks. bemanning og utstyr på dagsentre, arbeidssentre, sosiale klubber o.l.)

• Skår ikke selve funksjonsnivået, som er skåret på skala 10.

- **N.B:** Skår pasientens vanlige situasjon. Hvis på akuttavdeling, skåres aktivitetene i perioden før innleggelsen. Hvis informasjon ikke er tilgjengelig, skårer en 9.

0 Pasientens omgivelser på dagtid er akseptable: til hjelp for å holde handikap skåret på skala 10 på et lavest mulig nivå, og med støtte for selvhjelp.

- 1 Mindre eller forbigående problemer (f.eks. sen utbetaling av penger); gode hjelpemidler er tilgjengelige men ikke alltid på ønskelig tidspunkt etc.
- 2 Begrenset utvalg av aktiviteter, f.eks. mangel på rimelig toleranse (f.eks. urettferdig nektning av adgang til offentlige bibliotek eller svømmehall etc.); handikap i form av mangel på fast adresse; utilstrekkelig støtte fra omsorgspersoner eller fagfolk; eller nyttig dagtilbud som bare er tilgjengelig i noen få timer.
- 3 Markert mangel på tilgjengelige gode tjenester som kan bidra til å begrense nivået av eksisterende handikap; ingen muligheter for å bruke intakte ferdigheter eller legge til nye; ufaglært pleie som er vanskelig å vurdere.
- 4 Mangel på noen som helst muligheter for aktiviteter på dagtid gjør pasientens problemer verre.

J Wing, RH Curtis, and A Bevoor: Health of the Nation Outcome Scales (HoNOS). Glossary for HoNOS score sheet. Br J Psychiatry 174: 432-434.

Norsk oversettelse av Torleif Ruud (1996, 2002) godkjent av Royal College of Psychiatrists Research Unit, London.

The Alcohol and drug Use Scale / Skalaer om alkohol / stoffmisbruk 1999

Skalaer om alkohol/stoffmisbruk 1999	Pasient nr:	Tidsrom:
Veiledning: Sett ring rundt ett tall i hver spalte	Skåret av:	Dato:
Skala for klinikerens vurdering av alkoholforbruk	Skala for klinikerens vurdering av rusmiddelbruk (ekskl. alkohol)	
<p>Vurder din klients bruk av alkohol gjennom de siste 6 måneder etter følgende skala. Hvis personen er innlagt i institusjon, er rapporteringsintervallet perioden forut for institusjonalisering. Du bør avveie opplysninger fra selvrapportering, intervjuer, observasjoner av atferd samt komparentopplysninger (fra familie, dagsenter, nettverk etc.) mot hverandre ved valg av nivå på skalaen.</p> <p>1 = AVHOLDENDE Klienten har ikke brukt alkohol i dette tidsintervallet.</p> <p>2 = BRUK UTEN FUNKSJONSNEDESETTELSE Klienten har brukt alkohol i dette tidsintervallet, men det er ikke sikre tegn til vedvarende eller tilbakevendende sosiale, yrkesmessige, psykologiske eller fysiske problemer relatert til bruken og ingen sikre opplysninger om tilbakevendende farlig alkoholbruk.</p> <p>3 = MISBRUK Klienten har brukt alkohol i dette tidsintervallet, og det er sikre tegn til vedvarende eller tilbakevendende sosiale, yrkesmessige, psykologiske eller fysiske problemer relatert til bruken eller sikre opplysninger om tilbakevendende farlig alkoholbruk.</p> <p>4 = AVHENGIGHET Fyller kriteriene for misbruk, pluss minst tre av følgende: Større mengder eller lengre intervaller med bruk enn hensikten var, mye av tiden går med til å få tak i eller bruke alkohol, hyppig intoksikasjon eller tilbaketrekning interfererer med andre aktiviteter, viktige aktiviteter oppgis på grunn av alkoholbruk, kontinuerlig bruk til tross for viten om alkoholrelaterte problemer, markert toleranse for alkohol, karakteristiske abstinenssymptomer, alkohol brukt for å lindre eller unngå abstinenssymptomer. For eksempel: Ukontrollert drikking og opptatthet av drikking har fått klienten til å falle ut av arbeidstrening og sosiale aktiviteter som ikke er relatert til drikking.</p> <p>5 = AVHENGIGHET MED INSTITUSJONALISERING Møter kriteriene for alvorlig, og i tillegg er de relaterte problemene så alvorlige at de gjør det vanskelig å bo utenfor institusjon. For eksempel: Konstant drikking fører til ukontrollert atferd og manglende evne til å betale husleie, slik at klienten ofte blir politianmeldt og søker hospitalisering.</p>	<p>Vurder din klients bruk av rusmidler (ekskl. alkohol) gjennom de siste 6 måneder etter følgende skala. Hvis personen er innlagt i institusjon, er rapporteringsintervallet perioden forut for institusjonalisering. Du bør avveie opplysninger fra selvrapportering, intervjuer, observasjoner av atferd samt komparentopplysninger (fra familie, dagsenter, nettverk etc.) mot hverandre ved valg av nivå på skalaen.</p> <p>1 = AVHOLDENDE Klienten har ikke brukt rusmidler i dette tidsintervallet.</p> <p>2 = BRUK UTEN FUNKSJONSNEDESETTELSE Klienten har brukt rusmidler i dette tidsintervallet, men det er ikke sikre tegn til vedvarende eller tilbakevendende sosiale, yrkesmessige, psykologiske eller fysiske problemer relatert til bruken og ingen sikre opplysninger om tilbakevendende farlig bruk av rusmidler.</p> <p>3 = MISBRUK Klienten har brukt rusmidler i dette tidsintervallet, og det er sikre tegn til vedvarende eller tilbakevendende sosiale, yrkesmessige, psykologiske eller fysiske problemer relatert til bruken, eller sikre opplysninger om tilbakevendende farlig bruk av rusmidler.</p> <p>4 = AVHENGIGHET Fyller kriteriene for misbruk, pluss minst tre av følgende: Større mengder eller lengre intervaller med bruk enn hensikten var, mye av tiden går med til å få tak i eller bruke rusmidler, hyppig intoksikasjon eller tilbaketrekning interfererer med andre aktiviteter, viktige aktiviteter oppgis på grunn av rusmiddelbruk, kontinuerlig bruk til tross for viten om rusmiddelrelaterte problemer, markert toleranse for rusmidler, karakteristiske abstinenssymptomer, rusmidler brukt for å lindre eller unngå abstinenssymptomer. For eksempel: Ukontrollert rusmiddelbruk og opptatthet av rusmidler har fått klienten til å falle ut av arbeidstrening og sosiale aktiviteter som ikke er relatert til rusmiddelbruk.</p> <p>5 = AVHENGIGHET MED INSTITUSJONALISERING Møter kriteriene for alvorlig, og i tillegg er de relaterte problemene så alvorlige at de gjør det vanskelig å bo utenfor institusjon. For eksempel: Konstant rusmiddelbruk fører til ukontrollert atferd og manglende evne til å betale husleie, slik at klienten ofte blir politianmeldt og søker hospitalisering.</p>	

The Global Assessment of Functioning Scale / Manual for GAF-S symptom og GAF-F Funksjoner

Manual for GAF-S - Symptomer

Vurder psykisk symptombelastning på en hypotetisk kontinuerlig skala for mental helse/sykdom. Ta ikke i betraktning symptomer som skyldes somatiske (eller miljømessige) begrensninger.

100	Ingen symptomer.	Utfyllende stikkord*: Glede, kreativitet, livsgnist.
91	Ingen eller minimale symptomer (f.eks. litt angst foran en eksamen).	Jevnt og godt humør. Lettere stressymptomer.
81	Hvis symptomer foreligger er de forbigående og forståelige reaksjoner på psykososiale påkjenninger (f.eks. konsentrasjonsvansker eller en krangel i familien).	Moderate stressymptomer.
71	Noen lette symptomer (f.eks. deprimeret sinnstemning og lettere søvnløshet).	Her begynner mer avgrensede symptomer av lengre varighet.
61	Moderate symptomer (f.eks. avflatede følelser og omstendelig språk, sporadiske panikkanfall).	Symptomene begynner nå å bli tydelig for andre.
51	Alvorlige symptomer (f.eks. selvmordstanker, alvorlige tvangsrитуaler, hyppige bulikktøyri).	Alvorsgraden tiltar. Klart behandlingstrengende.
41	Endel forstyrrelse i realitetstesting, kommunikasjon, dømmekraft, tankevirksomhet eller stemningsleie (f.eks. talen er iblant ulogisk, uklart eller irrelevant).	Psykegrense, men rommer også andre svært alvorlige symptomer.
31	Adferden er betydelig påvirket av vrangforestillinger eller hallusinasjoner, eller alvorlig svikt i kommunikasjon eller dømmekraft (f.eks. av og til usammenhengende tale, svært upassende adferd, stadige selvmordstanker). <i>Se også GAF-F (funksjoner)</i>	Psykotiske <i>atferdsforstyrrelser</i> og beslektede tilstander.
21	En viss fare for å kunne skade seg selv eller andre (f.eks. selvmordsforsøk uten klar forventning om å dø; ofte voldelig; manisk oppsløpethet), eller grov svikt i kommunikasjon (f.eks. stort sett usammenhengende eller stum). <i>Se også GAF-F (funksjoner)</i>	Utilregnelighet og utageringsfare. Skadebegrensende tiltak er nødvendig.
11	Vedvarende fare for å skade seg selv eller andre alvorlig (f.eks. gjentatte voldshandlinger), eller alvorlig selvmordshandling med klar forventning om å dø. <i>Se også GAF-F (funksjoner)</i>	Alvorligste psykopatologiske tilstander. Trenger konstant hjelp, tilsyn og beskyttelse over tid.
1		

*) De utfyllende stikkord står ikke i den opprinnelige GAF-manual.

Manual for GAF-F - Funksjoner

Vurder sosial og yrkesmessig fungering på en hypotetisk kontinuerlig skala for mental helse/sykdom. Ta ikke i betraktning funksjonssvikt som skyldes somatiske (eller miljømessige) begrensninger.

100	Førsteklasses fungering innen et vidt spekter av aktiviteter, livsproblemer blir aldri u håndterlige, andre søker seg til personen på grunn av hans eller hennes mange positive kvaliteter.	<i>Utfyllende stikkord*:</i> Usedvanlige kvaliteter.
91		
90	God fungering på alle områder, interessert i og engasjert i et bredt spekter av aktiviteter, sosialt velfungerende, generelt sett tilfreds med livet, kun dagligdagse problemer og bekymringer (f.eks. en gang i blant en krangel med noen i familien).	Svært godt fungerende.
81		
80	Ikke mer enn lett reduksjon i sosial, yrkesmessig eller skolemessig fungering (f.eks. midlertidig komme på etterskudd med skolearbeid).	Fortsatt godt fungerende.
71		
70	Noen vansker med å fungere sosialt, yrkesmessig eller i utdanning (f.eks. sporadisk skulking, lyveri innenfor hjemmet), men fungerer generelt sett ganske bra, har noen meningsfulle mellommenneskelige forhold.	Her begynner funksjonssvikt som er mer enn normalt situasjonsbetinget.
61		
60	Moderate vansker sosialt, i yrke eller utdanning (f.eks. få venner, konflikter med arbeidskolleger).	Økende vanskeligheter med å følge opp jobb / skolegang. Sporadiske sykmeldinger.
51		
50	Alvorlige vansker med å fungere sosialt, i yrke eller utdanning (f.eks. ingen venner, klarer ikke å holde på en jobb).	Klarer ikke oppfylle vanlige krav fra jobb eller skole. Hyppige sykmeldinger.
41		
40	Større funksjonssvikt innen flere områder, så som i arbeid, utdanning og familieforhold (f.eks. deprimert mann som unngår venner, forsømmer familien, og ute av stand til å arbeide; barn som ofte juler opp yngre barn, er trassig hjemme, og mislykkes på skolen).	Sviker på flere områder. Er bl.a. sykmeldt.
31		
30	Ute av stand til å fungere på nesten alle områder (f.eks. holder sengen hele dagen; ingen jobb, venner eller hjem).	<i>Med atferdsforstyrrelsen går symptomer og funksjoner over i hverandre.</i>
21	☞ Se også GAF-S (symptomer)	
20	Av og til svikt i å sørge for et minimum av personlig hygiene (f.eks. griser med avføring).	Trenger en del hjelp, beskyttelse og tilsyn for å opprettholde et minimum av funksjoner.
11	☞ Se også GAF-S (symptomer)	
10	Vedvarende ute av stand til å skjøtte et minimum av personlig hygiene.	Trenger stadig og vedvarende hjelp, tilsyn og pleie.
1	☞ Se også GAF-S (symptomer)	

*) De utfyllende stikkord står ikke i den opprinnelige GAF-manual.

Appendix B – Regional Ethics Committee approval / Norwegian Social Science Data services approval / coursework approval

Regional Ethics Committee approval

REGIONAL KOMITE FOR MEDISINSK FORSKNINGSETIKK

Øst-Norge (REK I)

Mottatt 28.04.04

Forskningsjef Torleif Ruud
SINTEF Helse
Pb. 124 Blindern
0314 Oslo

Deres ref.:

Vår ref.: 211-04049

Dato: 19. april 2004


Effekt av ulike akuttpsykiatriske tilbud. En multisenterstudie ved Evalueringsnettverk for akuttpsykiatriske tilbud

Vi viser til Deres brev av 31.03.04 med svar på komiteens merknader til prosjektet.

Komiteen finner å kunne tilrå at prosjektet blir gjennomført, men mener fortsatt at det er en svakhet ved prosjektet at man ikke samler inn opplysninger om det tilbudet pasientene får før og etter det akuttpsykiatriske behandlingstilbudet. Ved bare å legge til grunn det som foregår inne på de ulike akuttpsykiatriske postene, er det sannsynlig at man vil trekke konklusjoner som er ufullstendige.

Komiteen oppfatter prosjektet som en beskrivelse av de ulike akuttpsykiatriske tilbudene, og ikke som en evaluering av effekt. Den ber om at tittelen på prosjektet endres i samsvar med dette, slik at det istedenfor "Effekt av ulike akuttpsykiatriske tilbud" står "Beskrivelse av ulike...".

Med vennlig hilsen


Knut Engedal
Professor dr.med.
Leder


Ida Nyquist
sekretær

Norwegian Social Science Data Services approval / Norsk Samfunnsvitenskapelig datatjeneste AS, godkjenning.

Mottatt 28.11.05

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fak: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Torleif Ruud
SINTEF Helse
Postboks 124 Blindern
0314 OSLO

Dato: 25.11.2005

Vår ref: 200400597 LT/LR

Deres dato:

Deres ref:

Prosjekt: 11074 Multisenterundersøkelse av akuttpsykiatriske tilbud

Vi viser til tidligere korrespondanse i forbindelse med ovennevnte prosjekt, senest telefonsamtale 17.11.2005.

Vi vurderte prosjektet 18.05.2004 og konkluderte med at SINTEF Helse var databehandler, jf. personopplysningslovens § 15 og at hvert deltakende prosjekt i multisenterstudien skulle melde prosjektet til personvernombudt for vurdering av meldeplikt/konsesjonsplikt. I tillegg måtte det inngås avtaler mellom SINTEF Helse og hvert deltakende prosjekt.

Vi forstår nå at SINTEF Helse ønsker å være behandlingsansvarlig for datamaterialet som sendes fra hvert av de deltakende prosjekter i multisenterstudien. Videre forstår vi det slik at noen av prosjektene i multisenterstudien omfatter ungdom i alderen 12-16 år. Dette er det ikke gitt melding om tidligere. Med bakgrunn i dette har vi foretatt ny vurdering av prosjektet.

Vi har vurdert prosjektet og finner at behandlingen av personopplysninger vil være regulert av § 2-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres slik det er beskrevet i meldeskjemaet og mottatt dokumentasjon for prosjektet. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://www.nsd.uib.no/personvern/register/>

Personvernombudet vil ved prosjektets avslutning, 31.12.2007, rette en henvendelse angående status for behandlingen av personopplysninger.

Personvernombudet vil for øvrig gjøre oppmerksom på at ved gjennomgang av innholdet i meldingene fra de deltakende prosjekter i multisenterstudien, ser vi at en del prosjekter har gitt melding om at opplysninger vil bli overført til SINTEF Helse i anonymisert form og ikke i avident-

Austlingskontorer / District Offices:

OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11 nsd@uio.no
TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kjerne@svt.ntnu.no
TROMSØ: NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmas@svt.uib.no

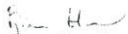
200400597 LT/LR

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fiserbar form. Personvernombudet vil ta skriftlig kontakt med de aktuelle prosjektledere for å rette opp dette. Vedlagte oversikt viser prosjekter i multisenterstudien som personvernombudet pr. 25.11.2005 har mottatt melding fra. Prosjekter merket med * er de prosjekter som har gitt melding om at opplysninger vil bli overført i anonymisert form.

Kontaktperson: Lis Tenold tlf. 55 58 33 77/ 55 58 21 17

Vennlig hilsen


Bjørn Henrichsen


Lis Tenold

Vedlegg: Oversikt over prosjekter i Multisenterstudien

Approval of coursework at University of Stavanger



Kjetil Hustoft
Njølstadvegen 219
4346 BRYNE

Unntatt fra offentlighet
Offl § 26 første ledd

Vår ref.: 16/07469-10

Dato: 4. desember 2019

Vedrørende søknad om godkjenning av opplæringsdelen

Vi viser til din søknad om godkjenning av opplæringsdelen, datert 18.10.2019. Doktorgradsutvalget har behandlet søknaden (DUHV 67/19) og vedtatt følgende:

Opplæringsdelen godkjennes.

Med vennlig hilsen

Henriette Thune
prodekan for forskning

Saksbehandler: Knut Sommerseth Lie, tlf.: +47 51 83 15 65

Dokumentet er elektronisk godkjent og har derfor ikke håndskrevne signaturer

Appendic C - Tables 1 , 3 and 4

Table 1 Mapping and Understanding Exclusion: Institutional, Coercive and Community – Based Services and Practices Across Europe

Based on “Mapping and Understanding Exclusion: Institutional, Coercive and Community – Based Services and Practices Across Europe, January 16th 2018 (Turnpenney, 2017a) and Variations in patterns of IH and in legal frameworks: and international comparative study *** (Sheridan Rains et al., 2019).

Country	1999-2000 (%) **	1999-2000 /100000 Per year **	Year of statistics (2013-2016)	IH rate (%) (2013-2016)	Number of IH (2013-2016)	IH / 100000 inhabitants / Year (2013-2016)	IH / 100000 / year in 2017 ***
Australia			2014			189.3	
Austria	18.0	175	2015		24308	282.0	
Belgium -Flanders			2014	11.1	4576	n.a	
Bosnia			n.a	n.a.	n.a.	n.a	
Bulgaria			2016	n.a	379	5.3 **	
Croatia			n.a	n.a	n.a	n.a	
Cyprus			n.a	2.0	n.a	n.a	
Czech Republic			2016*		366		
Denmark	4.6	47	2016	n.a	4699	81.6 **	58.5
England							82.2
Estonia			n.a	n.a	n.a	n.a	
Finland	21.6	218	2015	21.6	7955	144.0 **	
Former Yugoslav Republic of Macedonia			n.a	n.a	n.a	n.a	
France	12.5	11	2015	24.0	80000	119.0 **	
Georgia			n.a	n.a	n.a	n.a	
Germany	17.7	175	2013	n.a	139608	168.6 **	
Greece -Attica region			n.a 2013	n.a 3233	n.a	n.a	78.9
Hungary			n.a	n.a	n.a	n.a	
Ireland	10.9	74	2016	n.a	n.a	52.6	
Italy	12.1	n.a	2015	n.a	8777	14.5	

Acute hospitalization in psychiatry

Latvia			n.a	n.a	n.a	n.a	
Lithuania			2016	n.a	1011	35.5	
Northern Ireland							45.4
Norway			2014			155.3	
Malta			2015	n.a	108	24.5	
Netherlands	13.2	44	n.a	n.a	n.a	n.a	155.3
New Zealand							73.3
Poland			2015	14.0	45137	118.9	
Portugal	3.2	6	n.a	n.a	n.a	n.a	
Republic of Moldova							
Romania			n.a	n.a	n.a	n.a	
Scotland			2016	n.a	5008	92.7	98.4
Serbia			n.a	3.0	n.a	n.a	
Slovak Republic			n.a	n.a	n.a	n.a	
Slovenia			n.a	n.a	n.a	n.a	
Spain			n.a	n.a	n.a	n.a	121.9
Sweden	30.0	114	Average per year	n.a	12000	120	
Switzerland -Canton Basel ****			2013	10.6			
-Canton Vaud *****			2013-15	38.0			
Turkey			n.a	70-85 inclusive forensic	n.a	n.a	
Ukraine			2016	n.a	960	2.3	
United Kingdom	13.5	48	2016	n.a	25577	46.3	
Wales							56.8

n.a.: Not available

* Czech Republic: Released from the officially declared involuntary placements is 366 people in 2016. There is no data available about the number of the involuntary placements actually started which could potentially be much higher.

** (H. J. Salize & Dressing, 2004).

*** Based on population in the document (Sheridan Rains et al., 2019).

**** (Arnold et al., 2019)

***** (B. Silva et al., 2018)

Table 3 Emergency legal procedures referred to involuntary hospitalization in European and other countries based on information from individual studies.

European country	Proposal to be admitted	Authority to decide	Law	Reference
The Netherlands		Mayor of the town or Court- ordered admission	The Netherlands Exceptional Admissions to Psychiatric Hospitals Act (BOPZ)	(de Jong et al., 2017; Steinert, Noorthoorn, & Mulder, 2014)
France		A 72 –Hours’ observation period before any type of involuntary placement. Reviewed by at least 3 physicians	The July 2011 Act	(Gourevitch et al., 2013)
Switzerland	In Zurich every physician Who is entitled to practice medicine in Switzerland independently, or works under the supervision of a physician is authorized to refer patients involuntarily if he or she is not affiliated to the hospital the patient is referred to.	Differs in different cantons.	IH is regulated by a federal law which is implemented Differently in the 26 Swiss cantons (states) (Art.426, 427 and 429) in the Swiss Civil Code.	(Hotzy et al., 2019)

	<p>The child and adult protective services (Kindesund Erwachsenenenschutzbehoerde, KESB) is also entitled to execute an IH.</p> <p>Only doctors designated by the Department of Health and Social Action</p>	<p>In Canton Vaud.</p> <p>IH cannot exceed 6 weeks unless a compulsory order from the Adult Protection Authority is promulgated</p>		<p>(B. Silva et al., 2018)</p>
Other countries				
Japan		<p>One family member, often the parent of a patient, was officially designated as the patients' 'family guardian'. A family guardian, called 'Hogosha' in Japanese, was responsible for</p>	<p>The 2014 revision of the Act for Mental Health and Welfare, operative since April 2014. Hospitalization for Medical Care and Protection</p>	<p>(Noguchi et al., 2016) (Hayashi et al 2000)</p>

		protecting the patient particularly for approving involuntary hospital admissions. 2 psychiatrist must agree that treatment is necessary	(HMCP), 'Iryo-Hogo-Nyuin' in Japanese	
Taiwan	Patients family	Taiwan's Mental Health Act of 1990 were in 2007 changed: The 2007 Mental Health Act Amendment in Taiwan: 2 licensed psychiatrists	IH: Review by a Psychiatric Disease Mandatory Assessment and Community Care Review Committee = consisting of several specialists participating in a court-like body	(Hui-Ching Wu, 2012)
Commonwealth of Puerto Rico	Any person age 18 years or older may file a petition in the court	A psychiatrist indicating the need for the individual in question must certify the petition.		(de Jesus-Rentas, 2008)
China	Admission to a psychiatric hospital should be determined by the patients himself/herself except when lack of insight and aggressive or destructive behaviour.	New Mental Health Law 2013		(Yang et al., 2019)

Table 4 Voluntary and involuntary admissions at psychiatric hospital levels in Norway 2003-2020

Year	No of admission in adult psychiatry	Referred VH § 2-1 (%)	Referred IH compulsory observation § 3-2 and compulsory mental health care § 3-3	No of admission in adult psychiatry after specialist re-assessment	Admitted VH after specialist re-assessment § 2-1 (%)	IH compulsory observation § 3-2 and compulsory mental health care § 3-3 after specialist re-assessment (%) ***	Percentage of referrals to compulsory mental health care that ended with decisions on compulsory mental health care or compulsory observation	Reference
	n (%)	n (%)	n (%)	n	n (%)	n (%)	%	
2003	12338	7599 (62)	4695 (38)	12274	8638 (70)	3451 (28)	72	(The Norwegian Directorate of Health, 2003)
2005 - 2006 MA P study	3322**	1869 (56)	1453 (44)	3338		1148	78	
2005	11291	6339 (56)	4877 (43)	11327	7623 (67)	3567 (31)	69	(The Norwegian Directorate of Health, 2006)
2006	11777	6475 (55)	5239 (44)	11939	8048 (67)	3781 (32)	73	(The Norwegian Directorate of Health, 2007a)
2008	Not available data			16853	12496 (74)	4229 (25)	75	(The Norwegian Directorate of Health, 2008a) (The Norwegian Directorate

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								te of Health, 2009a)
2012						7421 (15)		
2013						7464 (16)		
2014						7819 (16)		
2015						7821 (17)		
2016	47921 age 16 or older		11939			8095 (17)	62	(The Norwegian Directorate of Health, 2020)
2017*						7704 (16)		(The Norwegian Directorate of Health, 2018)
2018	48.089 age 16 or older		11783			8076 (16) 186/100.000 9% were IH→VH	62	(The Norwegian Directorate of Health, 2020)
2019						8170		(statistics, 2020)
2003 - 2018	Range					15-32%	62-78	

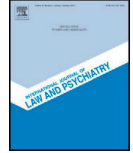
* = Change in Mental health legislation

** = MAP multi-center study 20 sites of acute emergency admission wards during 3-month period in Norway

*** = excluding District psychiatric centers

****= Personal message from Senior Advisor Ragnhild Bremnes Department of Health Registers, Division of Digitization and Health Registers, Norwegian Directorate of Health.

Appendix C - articles 1 - 3



Predictors of involuntary hospitalizations to acute psychiatry

Kjetil Hustoft^{a,*}, Tor Ketil Larsen^{a,1}, Bjørn Auestad^{b,2}, Inge Joa^{a,3}, Jan Olav Johannessen^{a,4}, Torleif Ruud^{c,5}

^a Stavanger University Hospital, Division of Psychiatry, Armauer Hansensvei 20, Post Office Box 8100, N-4068 Stavanger, Norway

^b Department of Mathematics and Natural Science, Faculty of Science and Technology, University of Stavanger, Norway

^c Akershus University Hospital, Division of Mental Health Services, Norway, 1478 Lørenskog, Institute of Clinical Medicine, University of Oslo, Norway

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ABSTRACT

Introduction: There is little knowledge of predictors for involuntary hospitalizations in acute psychiatric units. **Method:** The Multi-center study of Acute Psychiatry included all cases of acute consecutive psychiatric admissions in twenty acute psychiatric units in Norway, representing about 75% of the acute psychiatric units during 2005–2006. Data included admission process, rating of Global Assessment of Functioning and Health of the Nation Outcome Scales.

Results: Fifty-six percent were voluntary and 44% involuntary hospitalized. Regression analysis identified contact with police, referral by physicians who did not know the patient, contact with health services within the last 48 h, not living in own apartment or house, high scores for aggression, level of hallucinations and delusions, and contact with an out-of office clinic within the last 48 h and low GAF symptom score as predictors for involuntary hospitalization. Involuntary patients were older, more often male, non-Norwegian, unmarried and had lower level of education. They more often had disability pension or received social benefits, and were more often admitted during evenings and nights, found to have more frequent substance abuse and less often responsible for children and were less frequently motivated for admission. Involuntary patients had less contact with psychiatric services before admission. Most patients were referred because of a deterioration of their psychiatric illness.

Conclusion: Involuntary hospitalization seems to be guided by the severity of psychiatric symptoms and factors “surrounding” the referred patient. Important factors seem to be male gender, substance abuse, contact with own GP, aggressive behavior, and low level of social functioning and lack of motivation. There was a need for assistance by the police in a significant number of cases. This complicated picture offers some important challenges to the organization of primary and psychiatric health services and a need to consider better pathways to care.

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1. Introduction

The use of involuntary hospitalization (IH) in psychiatric institutions has been intensively debated by patients, mental health workers, relatives' organizations, human rights' organizations and legislators during the last decades (La Fond & Srebnik, 2002; Szasz, 2006). It is both a professional and a political goal to limit IH to those in need. However, little is known concerning the optimal use of IH and the factors that determine the use of IH.

1.1. Background

Rates of IH and involuntary psychiatric treatment of people with mental illness reflect characteristics of national mental health care and laws or other legal frameworks (Salize & Dressing, 2004). International studies on the use of IH in psychiatric hospitals show great variability in rates from 6 (in Portugal) to 218 (in Finland) per 100,000 inhabitants per year (Barbato & D'Avanzo, 2005; Mulder et al., 2008; Salize & Dressing, 2004). It is, however, very difficult to compare figures because studies have different designs and the EU countries have different legislation.

1.2. Norwegian Law

In Norway general practitioners (GP's) or other physicians working outside a psychiatric hospital may refer a patient to be assessed for voluntary or involuntary hospitalization. After the patient has arrived at the acute psychiatric unit, a psychiatrist (or a physician and clinical psychologist approved for this) finally decides whether the patient's admission should be voluntary or involuntary.

* Corresponding author. Tel.: +47 51 51 56 65, +47 90 99 85 10 (mobile); fax: +47 51 51 52 75.

E-mail addresses: khu2@sus.no (K. Hustoft), tkmaclarsen@mac.com (T.K. Larsen), bjorn.auestad@uis.no (B. Auestad), ijo@sus.no (I. Joa), jojo@sus.no (J.O. Johannessen), Torleif.ruud@medisin.uio.no (T. Ruud).

¹ Tel.: +47 90 83 27 95 (mobile).

² Tel.: +47 91 31 65 34 (mobile).

³ Tel.: +47 91 39 23 73 (mobile).

⁴ Tel.: +47 90 99 85 95 (mobile).

⁵ Tel.: +47 67 96 87 73, +47 97 54 67 60 (mobile).

According to the Norwegian Mental Health Act referrals for involuntary psychiatric admissions can only be to inpatient units in hospital departments or community mental health centers certified for this (Ministry of Health and Care Services, 1999, 2006). Norway does not have separate psychiatric forensic hospitals. The referring physician must have seen the patient in person within 10 days prior to hospitalization if the patient's referral is involuntary (Fig. 1).

The referring physician then decides, based on the Mental Health Act, whether a patient should be referred for voluntary hospitalization (VH) (§ 2–1), involuntary observation up to 10 days (§ 3–2) or an involuntary admission with unspecified length of stay (§ 3–1). The involuntary observation § 3–2 requires or a strong suspicion of a severe psychiatric disorder in order to accept the patient for IH, in other words a possible psychotic condition which need further assessment. Involuntary admission § 3–1 with unlimited length of stay requires that the patient has a serious mental disorder (i.e. psychosis) in order to accept the patient for IH. The law also requires at least one of the following additional criteria: there must be an urgent need for treatment and/or life threatening danger to self or others. After the arrival to the hospital's acute ward, IH patients must then be assessed by a psychiatrist (or a physician and a clinical psychologist approved for Mental Health Act decision making) within 24 h in order to make the final decision whether IH is appropriate and fulfills the criteria in the Mental Health Act. This 24 h observation period is used to obtain and evaluate all available information from the referring physician, the patient, the family if available, and sometimes from other sources like psychiatric nurse, home services or county mental health teams, as long as the patient does not deny access to this information. Patients who are referred for involuntary observation may not fulfill the suspicion of a severe psychiatric disorder (i.e. psychosis) and then have to be admitted voluntary § 2–1. A patient referred for involuntary admission § 3–1 may not fulfill the criteria and can either be admitted on observation § 3–2 based on suspicion of a severe psychiatric disorder, or on voluntary basis § 2–1 if no criteria are fulfilled.

The patient has the right to be informed about the ability to complain being IH. Both the referring physician (GP), the resident receiving the patient and the psychiatrist has the responsibility to inform the patient of his/her legal rights. If the patient does complain about IH the patient has a right to free legal service by an independent lawyer. If the patient wants to complain of the decision involuntary admission, the patient can complain to the Supervisory Commission (The Norwegian Social Affairs Committee, 1998–99). This commission consists of and chaired by a lawyer who is qualified to serve as a

judge, physician not affiliated with the hospital, and two other members. In respect of the two latter members, a person shall be appointed who has personally been under mental health care or is or has been a close relative of a patient or who represented the interests of patients in his occupation or function. These two are often representative of a patient's organization and a lay person with education and practice in social welfare. The Supervisory Commission is autonomous in its activity. It can rule out the psychiatrist decision of involuntary admission if they conclude there are not enough criteria for involuntary observation or admission on unlimited time period.

The Norwegian Mental Health Act follows the principles of World Health Organizations checklist for involuntary admission and treatment; 1) evidence of a mental health disorder of specified severity; 2) serious likelihood of doing harm to self or others and/or substantial likelihood of serious deterioration in the patient's condition if treatment is not given; 3) admission is for a therapeutic purpose (World Health Organization, 2005).

There are similar laws in Nordic countries like Finland (Turunen, Valimaki, & Kaltiala-Heino, 2009) and Denmark (Jepsen, Lomborg, & Engberg, 2010).

In this article we report and analyze clinical, epidemiological and societal factors influencing the referral patterns for IH in psychiatric acute units.

1.3. Review of studies

A literature search was carried out in PUB MED regarding involuntary hospitalization in different countries (key words: Involuntary hospitalization, voluntary hospitalization, acute psychiatric wards, coercion, and mental health legislation). Only studies that report rates of IH for consecutive admissions, and rates of IH per 100,000 inhabitants per year were selected. The focus was to identify studies in which IH are compared with voluntary hospitalization (VH) in order to evaluate what characterizes and predicts the former. In one of the studies outside Europe it was found that at a university hospital emergency room in Pennsylvania, USA, offering community-based inpatient psychiatric services in an urban setting, 10% were IH (Hoge et al., 1997). In a public sector hospital serving one-third of the state of Virginia 80% was IH. Among consecutive admissions to acute psychiatric inpatient services in Auckland, New Zealand, 62% were IH (Wheeler, Robinson, & Robinson, 2005).

In an overview of legislation regarding compulsory admission and involuntary treatment of mentally ill patients in EU-countries the

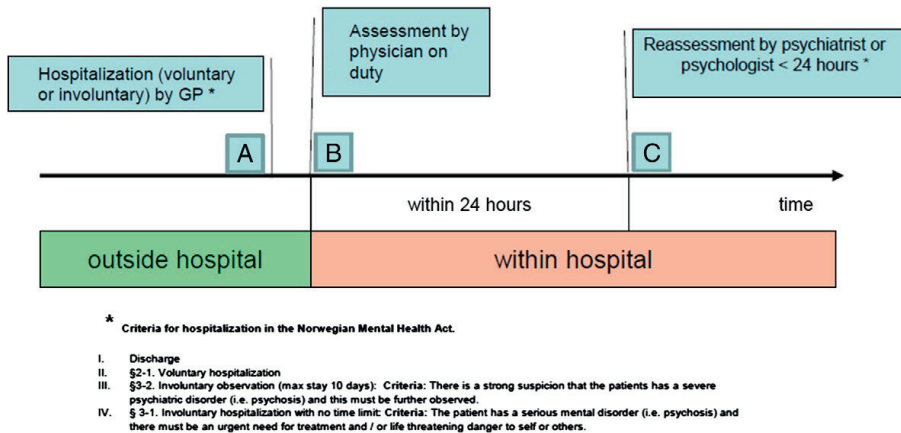


Fig. 1. Hospitalization process for involuntary admission in Norway.

percentage of IH for each country was quite stable during the period 1990 to 2000 (Salize, Dressing, & Peitz, 2002). EU-countries except Scandinavia showed an IH range of all admissions from 3.2% in Portugal to 21.6% in Finland. France reported 10.5–12.5% (1988–1999), UK 11.7–13.5% (1976–1999) and Germany between 3.9 and 44.8% in 1978 and 17.7% in 2000. The highest percentage of all of IH occurred in a region of Switzerland with 93% (1982). Lowest was Spain, with 1% IH of all admissions in 1985 (Riecher-Rossler & Rossler, 1993). We regard these huge differences in use of IH between countries as being unlikely and assume that the studies have biased samples.

The Scandinavian countries have different legislation than EU countries, and to some degree between themselves. Public health services are free and cover all citizens. The range in percentage of IH in other Scandinavian countries 1997–2000 varied from 4.6% (Denmark) to 30% (Sweden) (Salize & Dressing, 2004).

In Norway, a comparison of IH in acute psychiatric institutions in Hedmark County and Ullevål sector in Oslo in 1994, showed that Hedmark County had 48% IH while Ullevål sector in Oslo had 85% (Brabrand & Friis, 1997). In a study of three psychiatric hospitals and one psychiatric unit in a general hospital in 3 regions in Norway, 52% were IH (range 27 to 67%) (Iversen, Hoyer, & Sexton, 2009). In the city of Tromsø a study of acute psychiatric admissions from an out-of-hours casualty clinic, found that 59% were referred to IH (Deraas, Hansen, Gjaever, & Olstad, 2006). In a national report for 2001–2006, 35% of all inpatients in Norway were referred to IH (Bremnes, Hatling, & Bjørngaard, 2008, 2010).

We identified only two studies that compared IH with VH. In an Israeli study, IH patients were found to be more often single, male, young and with less education compared to VH (Rosca et al., 2006). In a New Zealand study, IH was associated with male gender and a diagnosis of psychosis and ethnicity (being Maori) (Wheeler et al., 2005).

In summary we found large variations in the use of IH compared to VH. The lowest rate of IH was reported in Spain with 1% (1985) and the highest in Switzerland (1982) with 93%. Studies from other Scandinavia countries varied from 4.6% in Denmark to 30% in Sweden. In Norway, rates varied between 35 and 85%.

1.4. Aims of the study

- To examine to which extent patients admitted to twenty acute psychiatric ward units in Norway were referred on an involuntary basis.
- To compare involuntary referred with voluntary referred patients.
- To describe which factors predicted use of referral for IH.

1.5. The following hypotheses were based upon relevant literature

- The level of IH was expected to be about 35% based on the most recent national report from Norway.
- IH patients were expected to be single, male, presented by police, with lower levels of education and more often non-Norwegians.

2. Materials and methods

2.1. Design

Data was collected from all consecutive hospitalizations during three months at twenty acute psychiatric units in Norway during the fall 2005 and early 2006 (Ruud, Gråve, & Hatling, 2006). The twenty participating health trusts represented all geographical regions in Norway, and 75% of all acute wards in the country. The remaining wards are to our knowledge not different regarding urban or rural characteristics.

2.2. Subjects

Altogether 3506 hospitalizations were registered. As the result of incomplete data regarding IH, 180 cases were excluded. Four admissions based on child protection law or a social law of involuntary admission was coded as IH. The final data set for analyses was thus 3326 cases. In this study the units mainly received patient age 18 or above. However, 29 patients aged 15–17 were included since not all hospitals in Norway had acute adolescent units available and adult acute psychiatric emergency units could not reject patients seeking admission. Patients referred for involuntary observation up to 10 days (§ 3–2) or involuntary hospitalization with unspecified length of stay (§ 3–1) was coded as IH.

There were no exclusion criteria.

2.3. Methods

Data were collected by psychiatric health professionals including psychiatric nurses, nurses and nurse assistants, admitting psychiatrists and clinical psychologists. Personnel received training sessions for use of the Global Assessment of Functioning (GAF)-scale (American Psychiatric Association, 1987; Wing et al., 1998; Wing, Curtis, & Bevor, 1999) and Health of the Nation Outcome Scales (HoNOS) through discussions and scoring of vignettes. Every site had a local project coordinator. Data was collected, anonymized and transferred to a central database for the study.

2.4. Instruments/materials

For general sociodemographic description we used an admission registration form for acute psychiatric wards developed for this study (Ruud et al., 2006). The date and time of day for the admission was described, as well as acute admission (whether or not the patient could wait another day to be assessed), referral agency, referral status (voluntary/involuntary), being followed by police, and patient's request for acute admission and previous contact with mental health agencies. If previously admitted, the last level of care, elective or acute hospitalization was described. The following demographic data was collected: date of birth, gender, ethnicity, being parent for children less than 18 years of age, care of children status, living accommodations, source of income, psychiatric problems, educational level and service deliveries prior to admission.

We used the Global Assessment of Functioning Scale (GAF) axis IV in DSM-IV, and the scores were split into symptom (GAFs) and function (GAF) scores (American Psychiatric Association, 1987; Goldman, Skodol, & Lave, 1992).

Health of the Nation Outcome Scales (HoNOS) was used to rate severity of psychiatric problems. HoNOS consist of 12 items measuring behavior, impairment in cognitive function, symptoms and social functioning (Wing et al., 1998, 1999): 1 overactive, aggressive disruptive or agitated behavior, 2 non-accidental self-injury, 3 use of alcohol or drugs, 4 cognitive problems, 5 physical illness or disability problems, 6 problems associated with hallucinations and delusions, 7 problems with depressed mood, 8 other mental or behavioral problems (phobic, anxiety, obsessive-compulsive, mental strain/tension, dissociative, somatoform, eating, sleep, sexual or others), 9 problems with relationships, 10 problems with activities of daily living, 11 problems with living conditions and 12 problems with occupation and activities. The scale used the following scores; 0 (no problem), 1 (minor problem which do not need action), 2 (mild problem but definitely present), 3 (moderately severe problem) to 4 (severe to very severe problem).

2.5. Ethical considerations

The study was approved by the Regional Ethical Committee in Eastern Norway (no. 04049), and Norwegian Social Science Data

Table 1
Demographics of patients with voluntary or involuntary hospitalizations to 20 acute psychiatric units in Norway.

	N	Voluntary hospitalization			Involuntary hospitalization			p-value
		Mean	n	S.D.	Mean	n	S.D.	
Age	3322	38.9	1869	14.5	40.4	1453	16.8	0.0005
Gender; male	3321		906		48.5	784		0.002
Country of origin	3291							
–Norwegians			1684		90.9	1264		0.006
Marital status	3252							
–Unmarried			954		51.9	838		0.0005
–Married/divorced/separated/widowed			884		48.1	576		40.7
Highest level of education	3069							
–Obligatory (1–10)			873		50.3	728		0.016
–High school/university			864		49.7	604		45.3
Living situation, living alone	3259		958		52.3	728		0.727

Service and The Norwegian Data Inspectorate under the Norwegian Ministry of Labour and Government Administration, NSD (no. 11074).

2.6. Statistical analyses

Analyses were made with the statistical package SPSS (version 17.0) (SPSS, 2006). The sample was divided into voluntary hospitalization (VH) and involuntary hospitalization (IH). Descriptive statistics were used to calculate the mean and standard deviation (SD), t-test and Chi-square test were used for testing significance of differences between IH and VH. Logistic regression was used in the analyses of predictors for IH logistic regression was used.

Due to the large data set many factors may be identified and complex models may be well estimated. But the focus here was on the main effects highlighting the most important trends in the data. Such a parsimonious model may be viewed as an approximation to a more elaborate model for the data. The validity of such an approximation may be checked via goodness of fit measures and residual diagnostics. To achieve this stepwise variable selection techniques with strict criteria ($p\text{-in} = 0.01$, $p\text{-out} = 0.02$) were used to include a variable in the model. Forward and backward variable selection procedures were used to single out the statistical most important predictors. Initially 32 different prediction variables were candidates for inclusion. Both procedures gave very similar results and the model showed good fit according to the Hosmer–Lemeshow statistic and residual analysis.

3. Results

We found that 1453 (44%) of the patients were referred for IH. Of all patients included, 28% were referred for involuntary observation (maximum duration 10 days) and 16% for involuntary hospitalization with no time limit for stay. IH patients were older, more often male, more often of non-Norwegian origin, unmarried and had lower level of education (Table 1).

IH patients were admitted more often during evening and night-shifts, were not referred from their family doctor, and the referral agency did not know the patient. They were more often brought to hospital by the police, did not want to be hospitalized, had fewer previous contacts with psychiatric services and had less responsibility for children (Table 2). Many of the IH patients who had children did not seem to need public assistance or support for their children. IH patient had less often their income from paid work or sickness benefit.

IH patients had higher mean HoNOS scores on overactive, aggressive, disruptive or agitated behavior, cognitive function, hallucinations and delusions, problems with relationship with others and problems with activities of daily living (Table 3). Altogether 62.4% of the VH and 59.7% of the IH were reported to have deterioration or relapse of a more chronic psychiatric illness as reason for referral. Regarding reasons for being hospitalized by GP we found no differences between patients with recent debut of psychiatric illness, new period of the psychiatric disorder or deterioration of the psychiatric disorders. IH patients had lower scores on GAF symptom and GAF function at intake.

Table 2
Characteristics at referral process of acute patients admitted to 20 acute psychiatric units in Norway.

	N	Voluntary		Involuntary		p-value
		n	%	n	%	
Admission, evening or night (19 to 07)	3132	615	35.7	613	43.5	0.0005
Referral not from family doctor/GP	3326	1443	77.2	1187	81.5	0.0020
Referral source did not know the patient	3301	989	53.4	913	63.1	0.0005
Transported by police	3317	152	8.1	706	48.7	0.0005
No previous contact with psychiatric services	3197	354	19.5	376	27.2	0.0005
Regarding children	2797					
–No care		1268	79.3	1034	86.3	0.0005
–Partly care		112	7.0	64	5.3	
–Full care		219	13.7	100	8.3	
Need public help for children	958					0.0005
–No need		315	49.6	112	34.7	
–Need given		127	20.0	77	23.8	
–Uncovered need		15	2.4	17	5.3	
–Unknown		178	28.0	117	36.2	
Income source	3316					0.0005
–Paid work/sickness benefit		569	30.5	283	19.6	
–Rehabilitation funds/disability pension		790	42.3	629	43.4	
–Social benefit		377	20.4	389	26.9	
–Student loan		47	2.5	34	2.3	
–Retirement pension		84	4.5	114	7.9	

Table 3

Symptoms of patients admitted to 20 acute psychiatric units in Norway.

	N	Voluntary			Involuntary			p-value
		Mean	n	S.D.	Mean	n	S.D.	
GAF at intake	3266							
Symptoms		38.77	1843	11.35	31.88	1423	12.28	0.0005
Function		40.02	1843	10.80	34.69	1423	11.73	0.0005
HoNOS variable								
Problems with:								
Overactive, aggressive disruptive or agitated behavior	3201	0.61	1822	0.992	1.46	1379	1.36	0.0001
Non-accidental self injury	3191	1.03	1818	1.344	0.86	1373	1.352	0.712
Drinking or drug taking	3171	1.06	1809	1.415	1.15	1362	1.501	0.0001
Cognitive	3154	0.72	1806	0.979	1.20	1348	1.279	0.0001
Physical illness or disability problems	3187	0.66	1816	1.073	0.68	1371	1.088	0.301
Hallucinations and delusions	3179	1.00	1812	1.277	1.86	1367	1.495	0.0001
Depressed mood	3179	1.91	1818	1.149	1.29	1361	1.267	0.0001
Relationships	3166	1.67	1804	1.144	2.02	1362	1.237	0.432
Activities of daily living	3166	1.44	1807	1.136	1.73	1359	1.287	0.0001

We carried out a logistic regression analysis in order to examine what predicts IH. Thirty-two variables were entered including age, gender, intoxication status at admission, referred agency, marital status, living accommodations, source of income, level of education, GAF score, contact with health sources last 48 h, HoNOS, use of drugs and alcohol and suicidal status before admission in a stepwise variable selection. Some variables were clearly insignificant while some were at border level.

Table 4 shows the significant results. The odds ratio for IH was 3.72 if the patient had contact with police during the referral process entering the acute psychiatric units, 1.50 if the patient was referred from someone who did not know or followed up the patient, 1.48 if the patient had other unspecified contacts before referral. The odds ratio for IH was 1.46 if the patient did not live in his/her own house or apartment. The odds ratio for IH increased by factor 1.39 per unit increased score on aggression on the HoNOS scale and by factor 1.20 per unit increased score on hallucinations and delusions on the HoNOS scale.

The odds ratio was 1.19 if the patient had contact and support with the out-of-office clinic within 48 h before admission, and the OR increased by a factor of 1.11 per unit increased score if the patient had self-harm on the HoNOS scale and by a factor of 1.10 of increased

age (per 10 years). The OR decreased by a factor of 0.87 with increased score of "reduced mood level" on the HoNOS scale and by a factor of 0.45 with increased score of "passive suicidal thoughts and no active plans". Increase in GAF symptoms score (log transformed) decreased the OR for IH by a factor of 0.35 per unit.

4. Discussion

4.1. Involuntary hospitalization

In this large epidemiological study of hospitalization in twenty psychiatric acute units representing about 75% of all acute emergency units in Norway, it was found that 44% were involuntarily hospitalized (IH). In an earlier study of three psychiatric hospitals and one general hospital with an acute psychiatric unit in Norway (1997 to 1998), 51.7% were involuntarily referred (Iversen et al., 2009). In another study of acute emergency admissions in Tromsø, 59% were involuntarily referred (Deraas et al., 2006). In a Norwegian national report of all psychiatric units who receive involuntary admissions in 2006, only 35% were involuntarily referred (Bremnes et al., 2008). Our results are in between these findings, but the national report includes both acute admitted patients and elective admitted patients. The Tromsø study only looked at patients referred from an out-of-hours clinic, but did not include patients referred directly from a GP during normal practice hours. This may have influenced the result of a rather high level of IH in Tromsø since it included what we now see as predictors of IH; followed by contact with police, the referring physician probably did not know the patient and admission took place at evenings and nights. In this study 28% of all patients were referred for involuntary observation (maximum duration 10 days) and 16% for involuntary hospitalization with no time limit for stay. In the Norwegian national report 2001–2006 there was a range from 54 to 42% referred for involuntary observation and 34–33% for involuntary hospitalization with no limit for length of stay (Bremnes et al., 2008). Voluntary hospitalized patients increased from 11% in 2001 to 24% in 2006. From our study we can see that there was a higher percentage of VH, but this study includes only acute emergency admissions, while the national report also includes elective admitted patients.

4.2. Age

In our study the mean age of IH was 40.4 years and for VH 38.9 years. In the Norwegian study from Tromsø Casualty Clinic the mean age 32 was years, but they were not divided into IH and VH concerning age (Deraas et al., 2006). In the New Zealand study the median age of the 932 patents included were 34 years (range 16–68) (Wheeler et al., 2005).

Table 4

Predictors of involuntary hospitalizations (IH) to 20 acute psychiatric units in Norway.

Predicting factors	OR ^a	p-value ^b	95% C.I. for OR ^a	
			Lower	Upper
Contact with police	3.72	0.000	2.80	4.94
Referred from someone who did not know or followed up the patient	1.50	0.000	1.23	1.83
Other contact within the last 48 h	1.48	0.020	1.15	1.90
Living in other less stable housing conditions than living in own apartment or house	1.46	0.000	1.21	1.76
HoNOS aggression	1.39	0.000	1.29	1.50
HoNOS hallucinations and delusions	1.20	0.000	1.13	1.29
Contact last 48 h with out-of-office casualty clinic	1.19	0.090	0.97	1.44
HoNOS self-harm not by accident	1.11	0.005	1.03	1.20
Age, 10 years	1.10	0.001	1.04	1.17
HoNOS ^c reduced mood level	0.87	0.000	0.80	0.94
Passive suicidal thoughts, no active plans	0.45	0.000	0.36	0.56
GAF ^d symptoms at intake (log)	0.35	0.000	0.27	0.44
Constant	11.14	0.000		

^a Odds ratio.^b p-value 0.000 means less than 0.0005.^c Health of the Nation Outcome Scales.^d Global Assessment of Functioning.

4.3. Gender

In our study 53.9% involuntary referred patients were males. In a Norwegian national review (in 2006) males constituted 50.4 of those involuntary admitted (Bremnes et al., 2008). In the New Zealand study 56% of all patients were males, and 67% of males and 56% of females were involuntary admitted (Wheeler et al., 2005). In a Norwegian study 55% were males (Deraas et al., 2006), and in another study 47% were males (Iversen et al., 2009). There was no distinction between voluntary and involuntary referred males in these two studies. In an Israeli study in 1991, 64.7% of first time involuntary admitted patients were males (Rosca et al., 2006). In a Dutch study, more males than females (21% men and 15% women) were involuntary admitted (van der Post et al., 2009). Males seem to be more at risk in all these countries to be IH.

4.4. Country of origin

In 2005 there was 7.51 present inhabitants with another ethnicity than Norwegian (Statistics, 2006). In our study there were 325 patients (9.8%) with another national ethnicity than Norwegian. Within this group 13.5% came from other Nordic countries, 14.8% from Europe, 39.7% from Middle-East, 11.7% from Asia, 0.3% from Australia/Oceania, 2.5% from the American continent, and 15.1% from the African continent and 2.5% were adopted to Norway. Of the IH 12.1% had a different nationality than Norwegian compared to 9.1% of VH. In the Netherlands it was found that first and second generation immigrants from non-Western countries had a higher risk of contact with psychiatric emergency services and compulsory admission than native Dutch population (Mulder, Koopmans, & Selten, 2006). The association between non-Western ethnicity and compulsory admission was supported by greater severity of psychiatric symptoms, greater level of threat, more lack of treatment motivation and a lower level of functioning. In a study from Denmark, more immigrants were admitted involuntarily than Danish-born psychiatric patients (Norredam, Garcia-Lopez, Keiding, & Krasnik, 2009). The ethnicity cohort of the New Zealand study represented European 60%, Maori 23%, Pacific nations nearly 11%, Asian 4% and others 1% (Wheeler, 2005). Norway has so far a more homogeneous population than other countries, but received more people seeking asylum and labor immigration in the last 20 years.

4.5. Marital status

In our study 59.3% of involuntary were unmarried. In a Norwegian study 43% of all voluntary and involuntary were unmarried (Deraas et al., 2006), and in an Israeli study in 1991, 48.7% of first time involuntary admitted patients were single (Rosca et al., 2006). Patients with severe psychiatric symptoms, and some rather young may have more difficulty in establishing a stable relationship. When we add that they may not have their own house or apartment, living on rehabilitation funds or disability pension, a married or stable cohabitation status may be more difficult to achieve.

4.6. Level of education

In our study 54.7% of involuntary and 50.3% of the voluntary referred patients had only obligatory 10 years of education. In the Norwegian general population (year 2006) only 21% had lower secondary education as their highest academically level. In OECD countries average 31% have lower secondary education (Statistics Norway, 2006). This shows that patients admitted in our study had a lower level of education than the general population both in Norway and OECD countries. In an Israeli study, 22.9% of first time involuntary admitted patients had 8 years of education, 41.8% 9 to 12 years of education and 16.8% 13 or more years of education (Rosca et al., 2006). Norwegian Statistical Central Bureau yearbook 2007 showed that 87% aged 25–64 in 2004 had fulfilled minimum high school level. About 33% had fulfilled

university or college level. Involuntary hospitalized patients had a lower level of education maybe because the debut of a major psychiatric illness could have blocked further education. We do so far not know how much an IH may affect the patient's process to get more education. This could be influenced by number of IH, length of stay in the hospital, and the ability for the patient to successfully return to educational institutions after hospitalization.

4.7. Living situation, living alone

In our study 50.9% of IH and 52.3% of VH lived alone. When we asked them what kind of housing situation they were in, 67.7% of all patients had their own house/apartment, 0.9% lived in communal apartment without milieu personnel around, 5.3% lived in communal apartment with milieu personnel around, 3.4% in communal apartment with milieu personnel available 24 h/7d, 4% lived in an institution, 9.8% lived with their parents, 1.1% lived at a hospice, 3.8 did not have any place to stay at all, 1.4% at an asylum center for foreigners, 0.8% in a prison, and 1.7 with unknown housing situation. Of those having their own home, 30.3% were IH. In an Italian study it was much more frequent that patients lived with their family, and the involuntary admitted patient were more frequent young male schizophrenic patients living with their family of origin. Much of the 460 cases were not working at the time of admission (Zeppego et al., 2005).

4.8. Drug use

This study showed that IH was significantly influenced by the use of alcohol or drugs during the last six months. When the material was divided between no abuse, abuse and dependency, 26.6% of IH and 22.3 of VH abused or had a dependency on alcohol or drugs at admission. In a Norwegian study of first episode psychosis patients with substance abuse there was significantly higher risk for IH during follow up (OR 5.2) (Opsal et al., 2011). In the Norwegian study of an out-of-hours clinic 40% of the patients had a history of substance abuse (Deraas et al., 2006). The current study shows that 24.2% of all patients reported substance abuse. One reason less substance abuse was found may be the higher number of cases in this study.

4.9. Predictors of involuntary admission

The findings in this study showed that the strongest predictors of IH were the following: the patient had contact with police during the referral process, referred by someone with no knowledge of the patient, other contact with health or social services prior to admission, not living in an apartment or own house, a high score on aggression, hallucinations and delusions, contact with an out-of-office casualty clinic within the last 48 h, and the patient had a poor GAF symptom score at intake. No studies have been found in the literature to compare these results.

4.9.1. Contact with the police

One study reported that VH patients bring themselves to the hospital for treatment, while IH patients are brought to the hospital in the custody of others who seek their treatment (Hoge et al., 1997). In our study the police was in contact or transported the patient to hospital in 8% of the VH and 49% of the IH patients. Altogether 25.9% of all patients in our study were transported by the police to the acute psychiatric unit. The police in Norway are normally contacted when the patient is in an unstable, aggressive or otherwise insecure state. In these cases, the police are the only agency that can by force transport a patient to the acute psychiatric unit. Our findings correspond well to a Norwegian study which reported that 34% of all patients were accompanied by police, 24.4% of VH and 40.7% of IH patients (Deraas et al., 2006). However, this study only included 100 patients referred from an out-of-hours clinic (located on a county level in the Norwegian health system). In a

study of 70 involuntary hospitalizations in Tübingen, Germany 21% were brought to the hospital by the police on doctors' court hold (Laengle, Durr, Renner, Guenther, & Foerster, 2000).

4.9.2. Physician who referred did not know the patient

In Norway every citizen has their own GP. We could then expect that a high percentage of admitted patients were referred by their GP who knew them from before. Too few patients in this study are referred from their family physician. Of involuntary admitted patients 63% were referred by someone who did not know the patient. This was the second strongest predictor of IH, challenging the psychiatric services that knowledge of the patients' psychiatric history may reduce IH in the future. Contact with an out-of-office clinic the last 48 h was also a predictor of IH. The out-of-office clinic is often staffed by GP's, physicians working in hospitals or physicians working on shorter contracts with the county health services. They work under pressure during evenings and nights and often do not have a long time relationship with the patients in an acute state. They have to decide on a short time basis, often based on one appointment only, if the patient has to be admitted or not. This aspect gives them less knowledge and time to make a good and qualified conclusion for IH or VH.

4.9.3. Living accommodations

Living accommodations status for the psychiatric patient is important. We grouped together all other housing status i.e. all kinds of rented service apartments from the county with or without staff visiting the patient, living in an institution, living with parents or others, hospice or without any place to live at all. A clear predictor of involuntary hospitalization was if the patient did not live in his or her own apartment or house.

4.9.4. Symptoms of aggression, hallucinations and delusions

A high score on HoNOS aggression predicted IH. Aggressive behavior often will lead to the need of police in an admission process. Sometimes psychotic symptoms with hallucinations and delusions are a part of the psychiatric symptom picture of the patient. In our study there was a higher OR for aggression, hallucination and delusion which corresponds to the psychotic symptoms in the New Zealand study (Wheeler et al., 2005). In the New Zealand study IH patients were associated with male gender, a diagnosis of psychosis and ethnicity (being Maori). We found that IH were older, more often male, of non-Norwegian origin, unmarried and had lower level of education. This result corresponds with the Israeli study where IH patients were more often single males between ages of 18 and 44, and had poor levels of education (Rosca et al., 2006).

4.9.5. Symptoms of reduced mood level and self-harm not by accident and GAF

The OR decreased with an increase in score of "reduced mood level" and more intense suicidal behavior. This could express that more depressed patients often are VH. Increase in GAF symptom score decreased the OR for IH. This conclude that patients with a low GAF score at intake had severe psychiatric symptoms and were less likely to be involuntary admitted to Norwegian acute psychiatric units.

4.10. Patient wanted voluntary admission

After the patients had entered the acute psychiatric unit for hospitalization they were asked whether they wanted admission or not, independent of their referred legal status. It was found that 96.5% of VH and 29.7% of IH stated that they actually wanted admission.

In the study from Pennsylvania and Virginia USA, 81% of IH reported that they were not offered the opportunity to voluntarily enter the hospital, 56% of whom indicated they would have entered voluntarily had the offer been made (Hoge et al., 1997). In a questionnaire testing the

patient's understanding of the admission process, 56% of the VH and 19.3% of the IH had thoughts of voluntary admission. This may reflect the possibility to reduce the level of IH. On the other hand, patients who are admitted involuntarily but state that they actually want voluntary admission may also be clinically unstable, ambivalent and have poor insight. They may change their willingness to be voluntarily admitted when they reach the acute psychiatric unit, or during the period of admission process.

4.11. Source of income

In our study 25.7% had paid work, while 42.8 had rehabilitation funds/disability pension and 23.1% had other social benefits. Of the IH patients 26.9% had their income source from social benefits and 19.6% had paid work/sickness benefits, while the VH patient 20.4% had as income source social benefits and 30.5% were on paid work/sickness benefits. Many of the VH and IH patients were on disability pension (42.3 and 43.4%). In the Tromsø study 32% were economical supported by various benefit systems and 7% were employed (Deraas et al., 2006).

These two studies show that a high percentage of acute psychiatric patients in Norway got some kind of social security payments.

In order to control for possible random effects of different psychiatric centers we have rerun the model using a hierarchical procedure (R, Imer) with center as a random effect. This resulted in only minor changes in the estimated OR's (practically all within 10%). No changes in the overall results were seen.

5. Limitations

A limitation in this study was that catchment areas differ in population density. One patient may have had multiple admissions and could differ in involuntary or voluntary status when referred. There were multiple raters, because patients were admitted continuously to the units over twenty four-hours, seven days a week. Some raters did not fill in answers to all questions since some data were not always available in the acute admission process. There was no intersite reliability test on GAF and HoNOS.

6. Conclusions

Predictors of IH in acute psychiatric units are contact with the police, referred from someone who did not know the patient, had symptoms of aggression, hallucinations and delusions and a low GAF score at intake, and were admitted during evening and nights with frequent substance abuse.

Forty-four percent of all psychiatric admissions were IH. This result was in the middle compared to other studies. Few of the other studies are naturalistic with such a large number of patients included. Health systems need to consider better pathways to care.

Our data seems to support the idea that most patients IH where in need of treatment. We do not know to which degree use of IH could be prevented, however; it is the explicit goal for the Norwegian Health Authorities to reduce IH. We believe the first step to achieve this must be a solid knowledge. Descriptive studies like ours, is at least a good starting for such processes.

Conflict of interest

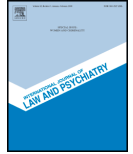
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Voluntary or involuntary acute psychiatric hospitalization in Norway: A 24 h follow up study

Kjetil Hustoft^{a,*}, Tor Ketil Larsen^{a,b}, Kolbjørn Brønnick^{a,c}, Inge Joa^{a,c}, Jan Olav Johannessen^{a,c}, Torleif Ruud^{d,e}

^a Division of Psychiatry, Center of Clinical Research in Psychosis, Stavanger University Hospital, Stavanger, Norway

^b Department of Clinical Medicine, University of Bergen, Norway

^c Network for Medical Sciences, University of Stavanger, 4036 Stavanger, Norway

^d Division of Mental Health Services, Akershus University Hospital, Lørenskog, Norway

^e Institute of Clinical Medicine, University of Oslo, Oslo, Norway

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ABSTRACT

The Norwegian Mental Health Care Act states that patients who are involuntarily admitted to a hospital must be reevaluated by a psychiatrist or a specialist in clinical psychology within 24 h to assess whether the patient fulfills the legal criteria for the psychiatric status and symptoms. International research on the use of coercive hospitalization in psychiatry is scarce, and an investigation of Norway's routine re-evaluation of involuntarily referred patients may expand knowledge about this aspect of psychiatric treatment. The aim of this study was to investigate the extent to which Involuntarily Hospitalized (IH) patients were converted to a Voluntary Hospitalization (VH), and to identify predictive factors leading to conversion. The Multi-center Acute Psychiatry study (MAP) included all cases of acute consecutive psychiatric admissions across twenty Norwegian acute psychiatric units in health trusts in Norway across 3 months in 2005–06, representing about 75% of the psychiatric acute emergency units in Norway. The incident of conversion from involuntarily hospitalization (IH) to voluntary hospitalization (VH) was analyzed using generalized linear mixed modeling. Out of 3338 patients referred for admission, 1468 were IH (44%) and 1870 were VH. After re-evaluation, 1148 (78.2%) remained on involuntary hospitalization, while 320 patients (21.8%) were converted to voluntary hospitalization. The predictors of conversion from involuntary to voluntary hospitalization after re-evaluation of a specialist included patients wanting admission, better scores on Global Assessment of Symptom scale, fewer hallucinations and delusions and higher alcohol intake. **Conclusion:** The 24 h re-evaluation period for patients referred for involuntary hospitalization, as stipulated by the Norwegian Mental Health Care Act, appeared to give adequate opportunity to reduce unnecessary involuntary hospitalization, while safeguarding the patient's right to VH.

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1. Introduction

Involuntary hospitalization (IH) is a controversial issue in psychiatry due to the ethical complexity of admitting a person for treatment against his/her will. The Madrid Declaration on Ethical Standards for Psychiatric Practice from August 25th 1996 states in article 4 ([World Health Organization, 2005](#)): "...No treatment should be provided against the patient's will, unless withholding treatment would endanger the life of the patient and/or the life of others. Treatment must always be in the best interest of the patient." International law bodies like the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment focus on how IH is performed in countries, the patient's right to information about use of coercion, and how

national supervisory bodies function with inspections practice ([Ministry of Justice and Public Security, 2000](#)).

1.1. Background

The autonomy of the psychiatric patient is a complicated construct. In situations where the patient might lack insight about the illness and is believed by health care professionals to suffer from psychosis, major depression or to be in a manic state, the balancing of patient autonomy with the right and need for treatment may be challenging. Patients with psychosis often lack insight – a capacity to gain an accurate and deep understanding of someone or something including awareness of a mental disorder and understanding social consequences of the disorder, the need for treatment and awareness of specific signs and symptoms of the disorder ([McCormack, Tierney, Brennan, Lawlor, & Clarke, 2014](#)). A study on the "patient's perspective", and "family burden of coercion" showed that IH often is associated with a feeling of being excluded from participation in the treatment ([Kallert, 2008](#)).

* Corresponding author at: Stavanger University Hospital, Division of Psychiatry, Jan Johnsenegate 12, post office box 8100, N-4068 Stavanger, Norway.

E-mail addresses: kjetil.hustoft@sus.no (K. Hustoft), ijo@sus.no (I. Joa), jojo@sus.no (J.O. Johannessen), Torleif.ruud@medisin.uio.no (T. Ruud).

Due to differences in mental health legislature both across Europe and in the rest of the world, levels of IH are difficult to compare (Kallert & Torres-Gonzales, 2006). EU-countries have been recorded varying rates from 3.2% in Portugal, to 21.6% in Finland. France has reported IH rates of 10.5–12.5% (1988–1999), UK 11.7–13.5% (1976–1999) and German reports range from 3.9 to 44.8% in 1978 and 17.7% in 2000 (Riecher-Rossler, 1993).

On a general level patients' may experience unaccountability or incompetency to give consent for hospitalization as a consequence of young age, or disturbance of consciousness caused by a serious medical condition. In some cases necessary treatment may conflict with religious beliefs, for example refusal to receive blood or blood products, or refusal to break off an ongoing hunger strike (Norwegian Ministry of Health and Care Services, 1999; Yate, Milling, & McFadzean, 2000). In these circumstances physicians have to make choices for the patients based on best practice and the need to save lives. Under the Norwegian Act of Health Personnel, necessary health care shall be given, even if the patient is incapable of granting his consent thereto, and even if the patient objects to such treatment (Ministry of Health and Care Services, 1999a).

In Norway, family members are commonly the ones making contact with the primary health care system if they believe a person to be in need of psychiatric hospitalization. The family doctor/the general practitioner (GP) is often the first port of call, or alternatively, the local afterhours emergency clinic might perform an evaluation of the patients' mental health status. The physician then determines whether or not there is a need for hospitalization as IH or VH.

1.2. Norwegian law

The Norwegian Mental Health Care Act follows the principles of the World Health Organization's checklist which states that IH and involuntary treatment may only be given when 1) there is evidence of a mental health disorder of specified severity 2) a serious likelihood exists that the person might do harm to him/herself or others, 3) substantial likelihood exists that serious deterioration might occur in the patient's condition if treatment is not given and 4) admission is for therapeutic purposes (World Health Organization, 2005).

1.2.1. The Norwegian Mental Health Care Act process

In order to be admitted to an acute psychiatric unit in Norway the patient must be evaluated by a physician (in most cases a GP) outside the hospital (Ministry of Health and Care Services, 1999b). The referring physician decides, based on the Mental Health Care Act, if a patient should be referred as voluntary hospitalization (VH) (§ 2–1), involuntary observation (IH) up to 10 days (§ 3–2) or involuntary hospitalization (IH) with unlimited duration (§3–3). To fulfill the IH observation criteria, the physician must suspect that the patient is suffering from a serious mental disorder. IH patients may be referred through a court decision, and adolescents can enter the hospital under the law of child protection or the law of social services. While the vast majority of IH is by referral from a physician, VH should always be considered first if the present condition of the patient does not clearly preclude this.

When the patients are admitted to the psychiatric acute emergency unit at a psychiatric hospital, they are immediately met by a physician or a resident physician for a first evaluation. The IH patient is re-evaluated by a psychiatrist or a psychologist with special authorization within 24 h. This is commonly done in the morning following the admission. This re-evaluation assesses whether the patient is in further need of IH. If IH is not indicated the patient can be treated as VH or discharged. Follow as indicated is performed by their GP and/or outpatient clinic or local municipality services. The 24 h observation period is intended to allow for more accurate decisions to be made regarding the need for IH. Given that patients are admitted, additional information regarding their condition and behavior may then be gathered from their GP, relatives, and other relevant sources like district psychiatric centers

or municipality mental health teams. The observation of patients by health care staff at the acute psychiatric emergency unit is also valuable in this decision process. Competent psychiatric staff, a quieter environment, reduction of stress, contacts with relatives and detoxification of drugs combines to allow for a more thorough re-evaluation. Especially in cases of substance abuse, the acute crisis might be over within this 24 h period. There is no claim that the Voluntary Hospitalized (VH) patients have to be re-evaluated within 24 h by a specialist since there is no process of changing their legal status of admission.

1.2.2. Conversion from VH to IH

Conversion from a VH to IH was not legal in Norway during 2005–2006. Under this act, if a VH patient required IH due to worsening of his/her condition he or she was required to return to the GP/or the local afterhours emergency clinic for a new "first" evaluation. In severe cases the GP could be called to the hospital, but this was rarely done in practice. A new Parliament revision took place June 30th 2006 and legalized January 1st 2007 (Mental Health Act § 3–4). From that time on it has been legal to convert a seriously ill patient from VH to IH on order of a specialist, if there was an imminent serious danger to the patient or others, but even so a second physician has to assess the patient.

1.2.3. Patients' rights

The patient is entitled to be informed about their opportunity to contest IH. Referring physicians (GPs or a physician at the local afterhours emergency clinic), the resident receiving the patient and the psychiatric specialist reviewing their cases are all obliged to inform the patient of his/her legal rights. If the patient does contest an IH, he/she are also entitled to free legal services by an independent lawyer. The patient may direct the complaint to the Supervisory Commission (The Norwegian Social Affairs Committee, 1998–99), which in many ways is similar to the lowest court level in the Norwegian legal system. It consists of four members chaired by a lawyer qualified to serve as a magistrate. The remaining members are a physician not affiliated with the hospital, a former patient or next of kin to a patient, and a person from a community related profession, such as a social worker or psychiatric nurse. The Supervisory Commission is autonomous in its activity, and may overrule the psychiatric specialist decision for IH.

According to the Norwegian Mental Health Care Act, referrals for IH can only be made to psychiatric inpatient units in hospital departments or community mental health centers (District Psychiatric Centers) certified for this (Ministry of Health and Care Services, 1999b, 2012). Independent psychiatric forensic hospitals do not exist in Norway. The referring physician is required to have seen the patient in person within 10 days prior to hospitalization (Fig. 1). Other Nordic countries like Finland (Turunen, Valimäki, & Kaltiala-Heino, n.d.) and Denmark have similar laws (Jepsen, Lomborg, & Engberg, 2010).

1.3. Review of earlier studies

We have identified one national report and four studies from Norway describing the IH to VH conversion process. One study was based on large samples while three were minor projects. However, we identified no international studies.

The national report represented 54% of the admissions from Norwegian psychiatric hospitals in 2001 ($N = 10,553$) and 78% in 2006 ($N = 15,721$). A respective 40% and 39% of admitted patients were referred for IH, and 88% and 75% stayed involuntary after specialist reevaluation (IH → IH) (Bremnes, Hatling, & Bjørngaard, 2008). Due to incomplete data from several sites in 2001 and improved admissions data recording in 2006, the number of included admission rose of nearly 50%. Hospital wards treating patients aged 15 and over (acute psychiatric emergency units, high security units and long term units) were included. The report found that patients with a diagnosis of schizophrenia had higher risk of IH than other diagnostic groups, and patients age 50–59 had a higher odds ratio than all other age groups for IH.

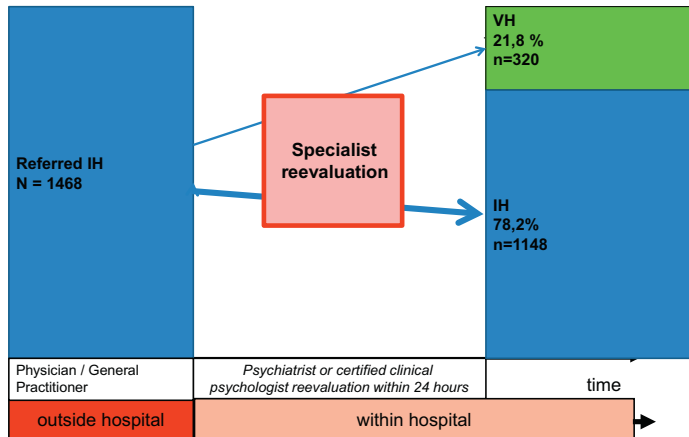


Fig. 1. The pathway of IH after specialist reevaluation in 20 acute psychiatric units in Norway.

The Bergen University Hospital study (2005–2008) from one acute psychiatric emergency unit in southwestern Norway ($N = 5317$) found that 54.5% of patients were referred for IH. The overall rate of IH \rightarrow VH was 26.4% (Fuglseth et al., 2016; Johansen, Mellesdal, Jorgensen, & Hunnskaar, 2012). They found that local afterhours emergency clinic were more likely to refer the patients for IH, and that this group also had a higher proportion of IH \rightarrow VH conversion. Of all patients converted 16.9% reported illegal substance use, while this figure for non-converted patients (IH \rightarrow IH) was only 4.6%. The factors most strongly associated with IH \rightarrow VH conversion was fewer manifested symptoms. Other factors included lower competence level of the referring agent (expected psychiatric expertise, previous knowledge of patient and availability of follow up), better scores on high GAF symptoms (GAF-S), more often reported suicide risk and diagnosis other than psychotic or affective disorders. The strength of this study was its basis in a large number of admissions over several years, but a limitation was that it only represented one hospital in one region in Norway.

We also identified three smaller studies of less relevance because they had selected and small samples. One study from eastern Norway looked at 104 patients and found that 49 patients (47.1%) were referred for IH with an IH \rightarrow VH rate of 44.9% (Tørrisen, 2007). Limitations of this study were its fairly low number of patients referred to a single hospital, and a majority (63%) was referred from a local out-of-office-hours casualty clinic.

A second small population study was from a local afterhours emergency clinic in northern Norway referring patients to a local acute psychiatric emergency unit (Deraas, Hansen, Gjaever, & Olstad, 2006). They found that of 100 patients admitted, 59 were referred for IH. They reported an IH \rightarrow VH rate of 15.3%. This study included patients referred both for IH observation and IH of unlimited duration. They described the diagnostic agreement between the referring physician and the specialist to be fairly good. The majority of the admissions (75%) happened during weekends, holidays or overnight, and 43% reported substance abuse. The clinic was staffed by local GP's working nights/weekends/holidays. However, this study included a relatively low number of patients referred to a single hospital.

The third small population study from southeastern Norway, looking at 181 patients referred only for IH observation, found an IH \rightarrow VH rate of 54.1% (Gjelstad, Lovdahl, Ruud, & Friis, 2003). However, the sample did not include those referred for IH of unlimited duration.

Overall we found that IH \rightarrow VH conversion rates varied from 11.4% in the national report to 26.4% in the large hospital study. In the three

smaller population studies the IH \rightarrow VH rate varied much more widely from 15.3% to 54.1%.

1.4. Aims of the study

1. To identify the frequency patients on involuntary hospitalization were converted to voluntary hospitalization within 24 h observation across 20 acute psychiatric emergency units in Norway.
2. To study which factors predicted that a patient would stay on involuntary hospitalization or be converted to voluntary status after the 24 h observation period.

2. Materials and methods

2.1. Design

A prospective observational study of a cohort of patients consecutively admitted to acute psychiatric emergency units in Norway.

2.2. Subjects

A total of 3506 hospitalizations were registered. Due to incomplete data regarding involuntary hospitalization (IH) and missing data regarding their <24 h re-evaluation, a final data set for analyses was 3338. The units mainly received patients aged 18 or above. However, 29 patients aged 15–17 were included because certain hospitals lacked acute adolescent units. These patients were instead admitted to adult acute psychiatric emergency units. Of all patients referred for admission, 1468 patients were referred for IH and 1870 patients were referred for VH. Age was the only exclusion criterion.

2.3. Methods

Twenty acute psychiatric units geographically spread all over Norway gathered by the invitation of the Norwegian Directorate of Health to participate in an acute psychiatric network organization to do more research on acute psychiatry in Norway. Data was collected from all consecutive hospitalizations at these twenty acute psychiatric units for three months during the fall 2005 and early 2006 (Ruud, Gråwe, & Hatling, 2006). The participating health trusts represented 75% of all Norwegian acute psychiatric wards located all over the

country. The VH and IH patients arrived to the acute units transported by hospital ambulance, followed by the police, relatives or came by themselves after they all had been evaluated by a physician/GP outside the hospital. Some patients may have been admitted to the acute psychiatric units before. The psychiatric specialist would use all psychiatric journal information available and use this as a base for evaluation. Data were collected by psychiatric health care professionals including psychiatric nurses, nurses and nurse assistants, psychiatrists and clinical psychologists. Staff were trained to use the Global Assessment of Functioning scale (GAF) (American Psychiatric Association, 1987; Wing et al., 1998; Wing, Curtis, & Bevor, 1999) and Health of the Nation Outcome Scales (HoNOS) through sessions involving discussions and the scoring of vignettes (Wing et al., 1998, 1999). Every site had a local project coordinator. Data was collected, anonymized and transferred to a central database for analysis.

2.4. Instruments and materials

General sociodemographic data was collected by an acute admission registration form purposely developed for this study (Ruud et al., 2006) which included: age, gender, ethnicity, having children < 18 years of age, child care status, housing status, source of income, nature of psychiatric problems, educational level and services received prior to admission. Also recorded were the admission date and time of day, acute admission status (whether or not the patient could wait another day to be assessed), referral agency and status (voluntary or involuntary), being escorted to the hospital by police, patient's desire for admission and any previous contact with mental health agencies.

We used the Global Assessment of Functioning Scale (GAF) axis IV in DSM-IV, with symptoms (GAF-S) and functional level (GAF-F) scored separately (American Psychiatric Association, 1987; Goldman, Skodol, & Lave, 1992).

The Health of the Nation Outcome Scales (HoNOS) was used to assess the severity of psychiatric problems. The HoNOS consist of 12 items measuring behavior, cognitive impairment, symptoms and social functioning (Wing et al., 1998; Wing et al., 1999). The scale uses the following scores; 0 (no problem), 1 (minor problem which do not need action), 2 (mild problem but definitely present), 3 (moderately severe problem) to 4 (severe to very severe problem).

Drug and alcohol abuse for a 6 month prior to admission was assessed by the Alcohol and Drug Use Scale being: 0 (abstinent), 1 (use without impairment), 2 (abuse), 3 (dependency), and 4 (dependency requiring institutionalization) (Goldman et al., 1992; Mueser, Noordsy, Drake, & Fox, 2003; Sederer & Dickey, 1996).

The IH group included both patients referred for IH observation up to 10 days (§3–2) and for IH of unspecified duration (§3–3) as well as a small number of patients referred under other IH paragraphs (IH court decision (§5–3), and law of child protection/law of social services).

2.5. Ethical considerations

The study was approved by the Regional Ethical Committee in Eastern Norway (no. 04049), and by the Norwegian Social Science Data Service and The Norwegian Data Inspectorate under the Norwegian Ministry of Labor and Government Administration, NSD (no. 11074).

2.6. Statistical analyses

Analyses were made using SPSS 21.0 (SPSS, n.d.), and the GLIMMIX module of SAS Academic version 3.3 used for the generalized linear mixed modeling (Schabenberger, n.d.). For descriptive statistics, frequencies, means and standard deviations (SD) were calculated as appropriate. As the binary variable of conversion from involuntary to voluntary admission was the outcome variable for all analyses, generalized linear mixed modeling with the SAS GLIMMIX procedure was used for all inferential statistics, using random intercepts for the site to correct for different base-rates at the different sites, and fixed effects for all variables, with logit link-function. All effects are presented as odds-ratios (OR) with corresponding 95% confidence intervals. First of all, individual analyses were performed for each variable, but with random intercepts in order to estimate the unadjusted effects. Secondly, all variables showing unadjusted significant effects on conversion from involuntary to voluntary admission were entered simultaneously, in order to estimate adjusted multivariate effects. Initially 25 variables were used: admission time of day, who referred the patient, prior knowledge of the patient, escorted by the police to the hospital, patient requesting admission, age, gender, marital status, living alone, GAF symptom and functioning, HoNOS scores (9 items), use of drug or alcohol, living accommodation, income source, educational level and appearance of drug use.

Out of the 20 sites investigated, there were 11 sites with 11 or more converted cases, and 9 sites had fewer than 11 converted cases and were excluded from the analyses as they precluded good model fit.

3. Results

Overall, 43.9% (1468 cases) of the 3338 patients were referred for IH (Hustoft et al., 2013) (Table 1). After the 24 h re-evaluation period, 78.2% of those referred for IH remained on IH (1148 cases), whereas 21.8% (320 cases) were converted to VH. In addition we found that a very small proportion of 12 VH patients (0.6%) who were converted to IH. The mean age for patients referred for IH was 40.4 years, and 53.9% of IH were men.

3.1. The IH → VH rate

Out of the IH group 63.1% were referred for IH observation, while 34.9% were referred for IH with unlimited duration of stay (Table 1).

Table 1
Rate of IH → VH conversion after psychiatric specialist re-evaluation at 20 psychiatric acute emergency units in Norway.

IH	Involuntary hospitalized at admission		Involuntary hospitalized within 24 h re-evaluation		Voluntary hospitalized within 24 h re-evaluation	
	IH		IH → IH		IH → VH	
	n	%	n	%	n	%
IH observation ≤ 10 days	927	63.1	669	71.2	258	27.8
IH with unlimited duration	512	34.9	470	91.8 ^a	54	10.5
IH Court decision	13	0.9	6	46.2	7	53.8
Involuntary § 5–3						
IH Law of child protection or Law of social services	16	1.1	3	18.8 ^b	1	6.3
Sum	1468	100.0	1148		320	

§ 3–2: involuntary observation ≤ 10 days.

§ 3–3: involuntary hospitalized with unlimited duration.

^a Excluded here were 10 voluntary cases § 2–1 (VH) who were converted to IH observation § 3–2 and 2 cases (§2–1) who were converted to IH unlimited duration § 3–3 (VH → IH).

^b 12 patients referred Law of child protection or Law of social services were converted to § 3–3.

Very few patients were referred on other IH paragraphs: 0.9% had an IH court decision, and 1.1% was under the Law of child protection/Law of social services. After reevaluation, 27.8% of the referred IH observation patients and 10.5% of patients referred on IH of unlimited duration were converted to VH (IH → VH) (Table 2). Of those patients converted IH → VH, 80.6% (258 cases) were referred for involuntary observation (§ 3–2), 16.9% (54 cases) unlimited duration (§3–3) and 2.5% (8 cases) on court decisions or laws of child protection or social services.

A univariate analysis found no significant differences between the groups IH → IH and IH → VH in age, gender, ethnicity, marital status, college or university educational level, living situation, whether or not the patient was referred from other psychiatric health care institutions, whether or not the patient was transported by the police or used drugs (Table 2). However, the IH → VH group had significantly more patients referred from local afterhours emergency clinics, more often wanted admission, higher HoNOS scores on self-harm not caused by accident and reduced mood level, and a higher score on alcohol use. The IH → IH group was more likely to be admitted during the evening and night shift, and scored significantly higher on the HoNOS scale for aggression, hallucinations and delusions, while having poorer scores on The GAF scale for both symptoms and functioning.

3.2. Predictors of IH → VH conversion

The multivariate analysis showed an increased odds-ratio (OR) for IH → VH if the patient wanted admission (0.522), had fewer symptoms (i.e. higher GAF symptoms scores at time of admission (1.022 per level of GAF-S)), lower HoNOS scores for hallucinations and delusions (0.614), and more use of alcohol (Drake Scale scores) (1.182) (Table 3).

Table 3
Multivariate model predicting conversion to VH at point of initial re-evaluation for IH patients.

	p-Value	O.R. ^a	95% confidence interval (C.I.)
Referring agent (GP)	Ref		
Local out-of-office-hours casualty clinic	0.2089	1.359	0.842–2.195
From psychiatric health care	0.2201	0.698	0.392–1.241
Did not want admission	0.0004	0.522	0.363–0.749
Admission, evening and night versus daytime	0.0933	1.370	0.948–1.979
Symptoms			
GAF-S ^b symptoms at intake	0.0093	1.022	1.005–1.040
GAF-F ^b functioning at intake	0.9136	0.999	0.981–1.017
HoNOS ^c aggression	0.7851	0.980	0.851–1.130
HoNOS self-harm not caused by accident	0.3501	1.073	0.926–1.242
HoNOS hallucinations and delusions	<0.001	0.614	0.531–0.708
HoNOS reduced mood level	0.4164	1.067	0.912–1.249
Alcohol ^b	0.0440	1.182	1.004–1.391

The SAS system: the GLIMMIX procedure is modeling the probability that involuntary referral remained involuntary and was not converted.

^a Odds ratio.

^b Global Assessment of Functioning.

^c Health of the Nation Outcome Scales.

4. Discussion

4.1. The IH → VH rate

We found that 21.8% of the patients who came on involuntary hospitalization (IH) were converted to voluntary hospitalization VH (IH → VH) (Fig. 2). This finding is similar to what was reported in the national report of 2006 with a rate of 25% and the Bergen University Hospital study (2005–2008) with a rate of 26.4% (Bremnes et al., 2008;

Table 2

Patients referred for involuntary hospitalization and re-evaluated by specialist within 24 h, demographic and symptom data.

	Involuntary hospitalized at admission		Involuntary hospitalized within 24 h re-evaluation				Voluntary hospitalized within 24 h re-evaluation				p-Value
	IH + VH total		IH → IH				IH → VH				
	N ^a		n	%	Mean	S.D.	n ^c	%	Mean	S.D.	
Demographical data	1468		1148					332			
Age					40.6	16.8			39.9	16.7	0.438
Gender; male	1466		1134	52.7			332	57.5			0.130
Norwegian	1450		1120	87.5			330	89.1			0.163
Unmarried	1426		1101	60.5			325	55.4			0.140
College or university	1344		1040	14.0			304	17.8			0.337
Living situation, living alone	1324		1024	55.9			300	54.7			0.997
Referral and admission											
Referring agent											
GP	1273		971	23.2			282	17.0			Ref.
Local out-of-hours casualty clinic	1273		971	47.5			282	60.6			0.021
From psychiatric health care	1273		971	29.4			282	22.3			0.059
Transported by police	1401		1087	51.5			314	47.8			0.377
Wanted admission	1244		946	26.5			298	41.9			<0.001
Admission, evening and night versus daytime	1422		1097	59.5			325	45.5			<0.001
Symptom data											
HoNOS aggression	1391		1085		1.5	1.4	306		1.2	1.3	0.001
HoNOS self-harm not caused by accident	1385		1077		0.8	1.3	308		1.2	1.5	<0.001
HoNOS hallucinations and delusions	1379		1076		2.1	1.5	303		1.0	1.3	<0.001
HoNOS reduced mood level	1373		1066		1.2	1.3	307		1.5	1.2	<0.001
GAF-S symptoms at intake	1435		1113		30.4	11.3	322		37.2	13.9	<0.001
GAF-F functioning at intake	1435		1113		33.4	10.9	322		39.2	13.3	<0.001
Alcohol ^b	1437		1108		1.7	1.0	329		2.0	1.2	<0.001
Drugs ^b	1442		1112		1.8	1.3	330		1.9	1.4	0.076

S.D.: standard deviation.

Ref: reference category.

HoNOS = Health of the Nation Outcome Scales.

^a Total number varied because of missing/not available data on some patient during acute admission process.

^b Alcohol and Drug Use Scale.

^c n = 332: 320 (IH → VH) + 12 VH → IH.

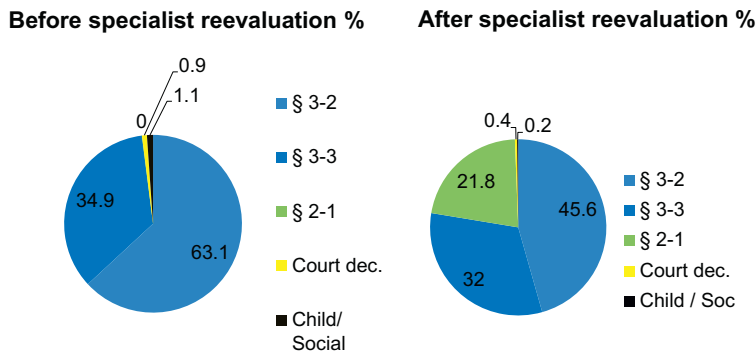


Fig. 2. 1468 involuntary referred patients reevaluated within 24 h in 20 acute psychiatric emergency units in Norway, (§ 2-1 = voluntary hospitalized, §3-2 = involuntary observation, §3-3 involuntary unlimited stay).

Johansen et al., 2012). Our study had 43.9% IH referred patients, while the others had respectively 39% and 54.5% on a hospital level. Our study is closer in design to the national report. Our study also represents 75% of all acute psychiatric emergency units in Norway, and could therefore be representative in comparison.

4.2. Predictors of IH → VH conversion

We found the following factors to predict conversion of IH → VH: the patient wanted admission, fewer symptoms (higher GAF-5), lower scores for hallucinations and delusions, and more frequent self-reported use of alcohol. These are similar results as in the Bergen study concerning alcohol use and symptoms level (Fuglseth et al., 2016).

The finding that less severe symptoms predicted conversion from IH to VH carries face validity, as does the finding regarding use of alcohol. It is possible that GP's in some cases use IH in order to get unstable patients into the hospital. However, our study does not explore this aspect in detail. The fact that many IH → VH patients were simply more intoxicated by alcohol at admission seems likely. Blood alcohol levels are generally reduced by 0.12–0.18 thousandth per hour in most people, with 0.15 thousandth per hours as a mean value across men and women (Health, N. D. o., 2005). Many of these patients probably “sobered up” during the night they stayed in hospital.

We find it puzzling that as many as 26.5% of the IH → IH patients stated that they actually wanted hospitalization. However, even if they wanted admission, very low GAF scores, lack of insight and ability to consent, might all leave patients in need of IH based both on the evaluation by the referring physician and the re-evaluating specialist. It is not so puzzling that 41.9% of the IH → VH population wanted admission since this population had lower score on HoNOS aggression-, hallucination and delusion score, higher GAF functioning and symptom score, and higher score on alcohol use (Table 2). However, it is difficult to interpret these findings because we did not study the extent to which extent patients wanted hospitalization when they were evaluated at the GP/out of office hour casualty clinic before they entered the hospital.

A review article shows that some VH is related to high scores on perceived coercion measures, and report that they are admitted against their free will (Høyer, 2008). Paradoxically some of these studies even report the opposite; IH patients might have a subjective opinion that they are VH, even if they legally are IH. In a Norwegian study 10% of the VH patients answered that they thought they were hospitalized against their own will (i.e. IH), and 40% of the legally IH patients answered that they had wanted to be hospitalized, and experienced the admission as VH (Iversen, Hoyer, Sexton, & Gronli, 2002). A study

from Ireland showed that a significant proportion (22%) of VH patients may experience the same level of perceived coercion as IH patients (O'Donoghue et al., 2014). They found lower GAF-F scores in the IH group (score level 32.8) as compared to the VH group (score level 47.1). This is the same trends as in our study (IH score 33.4 and VH score 39.2).

Our data showed that the proportion of patients referred for IH observation § 3-2, 27.8% were converted to VH. This was more than twice the incidence as for those referred for IH of unlimited duration § 3-3 and converted with only 10.5%, (Table 1). IH observation § 3-2 represented 80.6% (258 patients) of all IH → VH patients (Fig. 2). It makes sense that a larger part of IH observation § 3-2 should be converted given that the criteria for IH observation in itself represent an uncertainty about the presence of a major psychiatric illness, and also that the symptoms found by the GP, during a potentially short assessment period, may be unclear. Given that a re-evaluation by specialist has to be performed within 24 h, this appears to work in securing patients' right no coercion for a longer period than necessary. The Norwegian Mental Health Care Act has a basic criterion that initially voluntary mental health care has to be attempted. It is obviously pointless to attempt voluntary mental health care due to the patients symptom status at admission (Ministry of Health and Care Services, 1999b).

Clinically, patients with elevated blood alcohol levels often present with suicidal thoughts expressed to their spouse or other family members. They may have presented plans or even attempted suicide with intoxication of drugs in combination with alcohol when initially assessed by their GP or a local afterhours emergency clinic. However, during their stay at the acute psychiatric emergency unit, blood alcohol levels subside, and patients may present themselves as less suicidal when they have been examined by a specialist and they together have found a way out of the crisis situation. In some cases suicidal thoughts may have disappeared. This leaves them able to decide that they either want VH or wish to receive appropriate outpatient treatment.

It is a paradox that on the one hand it is important from human rights, ethical and legal standpoint to minimize the number of patients who have their autonomy reduced. On the other hand it is also important that patients in actual need of treatment will receive IH if they lack insight when IH is required. For example, adequate treatment for First Episode Psychosis (FEP) is very expensive, and in some countries, a low rate of IH might express unwillingness to spend resources on this vulnerable group of patients.

The Norwegian government (Ministry of Health and Care Services) set a goal in 2013 for the Norwegian psychiatric health trusts to reduce IH by 5% within a year (N. Ministry of Health and Care Services, 2013). However, this goal seems to be a politically rather than an empirically

based decision, as we do not know what the optimal level is for IH. Too much or too little use of IH might both harm patients whom might not receive or demand the treatment they need.

In a review of the legislation of coercive mental health care across 12 countries in Europe, substantial differences were found from the time the patients were admitted until the institutions informed the authorities (mostly courts) responsible for the IH evaluation (Kallert & Torres-Gonzales, 2006). In certain countries, e.g. Germany, the legal situation varies across the nation because each federal state within has its own Mental Health Act. Other countries like Bulgaria are younger democratic countries concerning the development of new laws and more centralized in structure meaning the law is equal in different parts/states of the country.

4.3. The IH decision process in Europe

In European countries the range of potential starting points for an IH process ranges from being any person (Spain), parents or relatives/guardian (Czech Republic, Greece, Slovak Republic) to physician or psychiatrist or administrative authority (Bulgaria, England, Germany, Israel, Italy, Lithuania, Poland, Sweden). Some countries also allow several sources to initiate an IH referral. While in Norway it is the GP/physician outside the hospital who is the generator of IH admission.

The time used to decide whether patients should remain on IH is very different in other European countries. In Germany the hospital must immediately inform the court and the administrative authority at by 10:00 AM the next morning at the latest. In the Czech Republic, within 24 h, IH patients are required to be reported to a court which then decides on involuntary placement within seven days. In Italy the judicial authority must be informed within 48 h, while in the Lithuanian Republic the IH patient must be brought to court within 48 h. In Spain in emergency situations the head of the psychiatric facility shall inform the court as soon as possible so that the IH can be legally ratified. Such ratification must take place within a maximum of 72 h from the time the court was notified. However, there is a second time period for the courts or authorities hearing ranging from two to ten days. Then, if IH is still required, the legal process may last for another week to six months. Norway, Sweden and Poland use a physician outside the hospital for assessment and a psychiatrist inside the hospital for re-evaluation. Italy uses at least 2 physicians while Lithuania requires 2 psychiatrists as the referring source outside the hospital in addition to a specialist inside the hospital to re-evaluate within 24 to 48 h.

We argue that the Norwegian system of re-evaluating the patient within 24 h represents a solid process which ensures that those patients not in need of IH are converted as soon as possible to VH. The process aims to ensure that the legal criteria of the Mental Health Care Act are fulfilled and the patient actually is in need of IH. It gives the psychiatric specialist more time to gather additional information about the patients' pre-admission health status. The health personnel in the acute psychiatric emergency unit are able to make additional clinical observations during this period.

5. Conclusions

In our study, 21.8% of the IH patients were converted to VH within 24 h because they did not fulfill the medical-legal criteria for being kept on IH. Factors predicting IH → VH conversion were that they said that they wanted admission, less severe symptoms loads, fewer hallucinations and delusions, and more abuse of alcohol at intake.

Involuntary hospitalization should only be used when it is in the best interest of the patient. The process of specialist re-evaluation of referred IH patients within a 24 h period is a reasonable process in the paradox of honoring the patient's autonomy and ensuring that the patient gets appropriate treatment.

6. Limitations

One limitation of this study was that catchment areas differ in population density across Norway. In addition, each patient may have been admitted multiple times and might have differed in status (IH or VH) each time. Ratings were done by multiple people, because patients were included for admission continuously around the clock across 20 units all over Norway. Some raters failed to answer to all questions as data was not always available at the point of ward admission, and the patient was in such a labile state that the necessary information was not collectable.

Conflict of interest

None.

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Patients' attitudes to psychiatric hospitalization: A national multicentre study in Norway

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Kjetil Hustoft ¹

Tor Ketil Larsen ^{1,2}

Kolbjørn Brønnick ^{6,7}

Inge Joa ^{1,3}

Jan Olav Johannessen ^{1,3}

Torleif Ruud ^{4,5}

¹ Division of Psychiatry, Center of Clinical Research in Psychosis, Stavanger University Hospital, Stavanger, Norway

² Department of Clinical Medicine, University of Bergen, Norway.

³ Network for Medical Sciences, Faculty of Health, University of Stavanger, 4036 Stavanger, Norway

⁴ Division of Mental Health Services, Akershus University Hospital, Lørenskog, Norway

⁵ Institute of Clinical Medicine, University of Oslo, Oslo, Norway

⁶ Department of Public Health, Faculty of Health Sciences, University of Stavanger, Stavanger, Norway

⁷ Centre of Age-related Medicine, Stavanger University Hospital, Stavanger Norway

Corresponding author:

Kjetil Hustoft, M.D., M.P.H.

Stavanger University Hospital, Division of Psychiatry, Jan Johnsen gate 12, post office box
8100, N-4068 Stavanger, Norway.

Email: kjetil.hustoft@sus.no

Phone: (+47) 51 51 56 65 / Mobile phone: (+47) 90 99 85 10

Abstract

Background

To explore patients' attitudes towards voluntary and involuntary hospitalisation in Norway.

Methods

A multi-centre study of consecutively admitted patients to emergency psychiatric wards over a 3 months period in 2005-06. Data included demographics, admission status (voluntary / involuntary), symptom levels, and whether the patients expressed a wish to be admitted regardless of judicial status. To analyse predictors of wanting admission (binary variable), a generalized linear mixed modelling was conducted, using random intercepts for the site, and fixed effects for all variables, with logit link-function.

Results

The sample comprised 3.051 patients with 1.232 of these (40.4%) being involuntary hospitalised. As expected 96.5% of the voluntary admitted patients wanted admission, while as many as 29.7% of the involuntary patients stated that they wanted the same. The involuntary patients wanting admission were less likely to be transported by police, had less aggression, hallucinations and delusions, more depressed mood, less use of drugs, less suicidality before admission, better social functioning and were less often referred by general practitioners compared with involuntary patients who did not want admission. In a multivariate analysis, predictors for involuntary hospitalization and wanting admission were, not being transported by police, less aggression and less use of drugs.

Conclusions

Almost a third of the involuntary admitted patients stated that they actually wanted to be hospitalized. It is unclear what this implies, but it seems to be important to ask patients, both before and after admission, thoroughly regarding whether they wish to be hospitalized or not.

Trial registration

Approved by the Regional Ethical Committee in Eastern Norway (reg. no. 04049) and the Norwegian Social Science Data Service and The Norwegian Data Inspectorate under the Norwegian Ministry of Labour and Government Administration, NSD (reg. no. 11074).

Key words

Psychiatry, involuntary hospitalization, attitudes, acute psychiatric wards, mental health legislation, coercion, insight, autonomy, capacity to consent, mental capacity.

Background

Patients' lack of insight in their mental illness is a challenge and may interfere with patients' willingness for admission (1). Patients often deny being ill despite obvious symptoms such as psychosis, mania or severe depression (2-4). This stands in sharp contrast to somatic medicine where patients with severe symptoms usually want admission and demand treatment.

The Norwegian Mental Health Care Act gives the physicians the right to admit a patient for involuntary hospitalization (IH) when a major psychiatric illness is present, represents a danger to self or others, and the patient denies the need for treatment. Voluntary mental health care has been tried, to no avail, or it is obviously pointless to try this (5). From 2002 – 2006, the use of IH in Norway ranged from 36% to 44%, including admissions in geronto- and forensic psychiatry (6-8). There is an extremely wide range of reported levels of IH. In other Scandinavian countries, rates of IH have been reported to vary from 4.6% in Denmark, to 30% in Sweden, and in Europe (1990 – 2000) with a range from 3.2% in Portugal to 44.8% in Germany (9, 10). Many studies are on selected samples and methodology is often unclear.

Hospitalization is influenced by several stakeholders such as the patients themselves, the caregivers, GPs and health personnel, physicians at municipal emergency clinics, other agents in the social network in which the patient is embedded, socio-political context, the media, or the general public's attitude towards psychiatry. Factors such as access to health care, availability of treatment, diagnostic evaluation, use of psychiatric medication, economic costs, and the quality of the psychiatric facilities also influences the use of IH (11-16). To be IH may increase stigma of having a mental disorder for example by prejudice that patients are dangerous and less competent, and patients may feel discriminated as a group (17).

In the last decade, there has been increased focus on the use of IH. The United Nations Convention on the Rights of Persons with Disabilities (CRPD) is an international treaty that identifies the rights of persons with disabilities as well as the obligations on States parties to promote, protect and ensure those rights (18). The main purpose of the CRPD is to ensure that disabled people have equal opportunity to realize their human rights and to reduce obstacles that make this difficult. It has been argued that it is the interest of psychiatry to reduce its reliance on coercion and implement alternative ways of support for the psychiatric patient (19). In Norway politicians have decided that use of IH should be reduced despite lack of research on what is a reasonable level of IH (20). In a study from Norway, 2001 people were interviewed by telephone by an independent polling company about IH and the use of coercion in psychiatry. Between 87% and 97% strongly or partial agreed with the use of IH when they were presented specific case-examples (21).

In the present study, we had the opportunity to ask at intake a large sample of 3.051 consecutively admitted psychiatric patients whether they actually wanted to be admitted or not. Based upon a review of the literature our hypothesis was that the majority of voluntary hospitalized patients (VH) would state that they wanted to be admitted (22). As we see it, the question of what IH patients would experience, is more open.

Methods

Design

This is a cross-sectional multi-centre study of a large cohort of patients consecutively admitted to psychiatric emergency wards in Norway during the fall 2005 and spring 2006.

Sample

Admission data were collected from all hospitalizations during three months at 20 psychiatric emergency units (23). The health trusts included all geographical regions and 75% of all psychiatric emergency wards in Norway. We identified 3.338 cases. Due to missing data regarding whether they wanted admission or not, 3.051 cases were included in the study. The involuntary hospitalized (IH) group included patients admitted for compulsory observation up to 10 days (section 3-2 in the Mental Health Care Law), or compulsory mental health care (section 3-3 in the Mental Health Care Law), and a small number of patients under other law paragraphs (chapter 5 in the Mental Health Care Law - court order for transfer to compulsory mental health care, and Law of Child Protection and Law of Social Services) (5).

Measures

We collected the following sociodemographic data: age, gender, ethnicity, having children younger than 18 years of age, childcare status, housing status, source of income, educational level and services received prior to admission. We recorded admission time and date, whether this admission was acute or elective, referral agency, legal status - voluntary or involuntary, whether transported to the hospital by police and previous contact with mental health agencies (23). All patients were asked whether they wanted to be hospitalized or not.

Functioning was measured by the Global Assessment of Functioning (GAF) split version scale of axis IV in DSM-IV, with symptoms (GAF-S) and functional level (GAF-F) scored

separately on a scale from one to 100. Higher scores indicated less symptoms and better functioning (24-27).

Psychiatric problems were measured by the 12-item Health of the Nation Outcome Scales (HoNOS) for behaviour, cognitive impairment, symptoms and social functioning. The scale used the following scores; zero (no problem), one (minor problem which do not need action), two (mild problem but definitely present), three (moderately severe problem) and four (severe to very severe problem) (28, 29).

Drug and alcohol abuse for the six month prior to admission was assessed by the Alcohol and Drug Use Scale being; zero (abstinent), one (use without impairment), two (abuse), three (dependency), and four (dependency requiring institutionalization) (25, 30, 31).

Data collection and procedure

Psychiatric nurses, nurses, nurse assistants, resident physicians, psychiatrists and clinical psychologists carried out the data collection. Health personnel participated in local training sessions regarding use of the Admission Registration Form, developed for this study, through discussions and scoring vignettes (32). The Admission Registration Form was completed by the clinician treating the patient or other health professionals participating in the patient's admission to the ward. The admission form did not have fields for registration of who collected these data or when it was done. Data were deidentified, and transferred to a central database.

Statistics

For descriptive statistics, frequencies, means and standard deviations (SD) were calculated. A binary variable representing wanting admission (1) or not (0) was the outcome variable in the analyses using generalized linear mixed modelling, using random intercepts for the site to correct for different base-rates at the different sites, and fixed effects for all variables, with logit link-function. All effects were presented as odds-ratios (OR) with corresponding 95 % confidence intervals. Individual analyses were performed for each variable in order to estimate the unadjusted effects. All variables showing unadjusted significant effects on wanting admission were entered simultaneously in the GLIMMIX procedure to estimate adjusted multivariate effects. Analyses were carried out with the use of SPSS 22.0 (33) and the GLIMMIX module of SAS Academic version 3.3 was used for generalized linear mixed modelling (34).

Results

Altogether 3.051 patients were included, 40.4% of them were involuntary hospitalized (IH).

Of all patients, 69.5% stated they wanted to be admitted. The majority of voluntary hospitalized (VH) wanted admission (96.5%). In the IH group, we found that almost one-third (29.7%) stated the same (Table 1).

Table 1 about here

The IH patients wanting admission were more less likely to be transported by police, had less aggression, hallucinations and delusions, more depressed mood, less use of drugs, less suicidality before admission, better social functioning and less referred by general practitioners compared with involuntary patients who did not want admission. (Table 2).

Table 2 about here

In a multivariate analysis, we found that being IH and wanting admission was predicted by being less often transported by police, having less aggressive and agitated behaviour and less use of drugs (Table 3).

Table 3 about here

Discussion

We found that nearly one third of IH patients and 96.5% of VH patients stated that they wanted to be hospitalized when asked after they were admitted to a hospital. Two studies and a review of outcome studies have reported similar results.

In a study from the USA of 260 consecutively admitted patients found that of the 52.6% IH group stated that they needed hospitalization, and 85.9% of the VH group stated the same (22).

An English mixed method follow up study of 778 IH patients from 22 rural and urban hospitals reported patients' attitudes to IH within first week of hospitalization (35). One year after discharge, 396 patients were interviewed again. Patients with higher level of functioning at baseline were less likely to consider their IH as justified compared to patients with lower level of functioning. Patients who were less satisfied with treatment the first week of IH reported the index IH admission as less justified. The rate of IH patients who wanted hospitalization was not described at intake. However, 40% of IH patients interviewed after one year felt their admission was justified. A qualitative study with a subsample of 59 of these patients found that on admission, 25.4% of IH patients felt that the hospitalization was necessary. (36).

Based on a review article of 18 outcome studies of IH, three of the studies interviewed IH patients within the first 25 days after admission (37). Between 39% and 58% of the IH patients stated that hospitalization was needed. However, these studies were rated as to a low to median level of quality, and they focused on changes of attitudes at follow up rather than what characterizes patients at admission.

How can we understand this seemingly counter intuitive finding? There are many dilemmas related to this kind of research. It would be expected that voluntary hospitalized (VH) patients would state that they wanted admission, and that IH did not want admission. However, studies have shown that patients are not always aware of whether they are voluntary or involuntary hospitalized. In a Norwegian study they found that 41% of IH patients believed they were on voluntary status, while 32% of VH patients thought they were on involuntary status (38).

At the level of the GP, there might be a tradition for using IH when the physician is unsure of whether the patient is psychotic or suicidal. At the level of the hospital, there might be lack of beds leading to an increased threshold for acute admissions. Lack of less restrictive alternative forms of care has been shown to be associated with more use of IH (15).

In a Norwegian study about attitudes towards IH of different stakeholder (former patients, relatives of patients, member of supervisory committees, psychiatrists, other physicians and lawyers), psychiatrist and physicians were in more favour of using IH for patients who were unable to care of themselves, harm themselves or others, compared to the other groups (39).

The reasons why physicians outside the psychiatric hospital level want to admit patients involuntary could be many, including that the physician may have been uncertain about whether the patient would stay voluntarily in the hospital, discharge himself / herself and then harm self or others due to an unstable mental health status. The physician may be afraid to make a serious mistake. The use of IH could be a final safeguard for the physician. Physicians at a municipal emergency primary health care clinic have limited time to evaluate symptoms and put up a list of pros and cons for an IH, and perhaps might not have explored and listened carefully to the patient's opinions regarding wanting hospitalization or not. Often the physicians do not know the patients well (40, 41). Physicians may feel concerned about being criticized by health authorities for evaluating the patients wrongly and therefore select IH to

be on the legally safe side (41). Cultural or traditional aspects may interfere as well. A study of informal coercion in 10 countries indicate that mental health care professionals work with ambivalence and contradictory expectations (42).

In Norway, the Mental Health Care Act has a section 3-4 “Prohibition against transfer from voluntary to compulsory mental health care”(43). A voluntary hospitalized patient has the right to discharge himself / herself anytime if not in danger for self or others. The VH patient may not be converted to compulsory observation or compulsory mental health care. However, the prohibition in the first paragraph does not apply in cases where discharge means that the patient constitutes an obvious and serious risk to his or her own life and health and those of others. Very few cases in Norway are converted from VH to IH (201 in 2018) (44). In some countries, they do not have such prohibition of conversion from VH to IH. In Denmark (2001) the proportion of IH adult persons in relation to the total number of psychiatric inpatients admitted that year were 7.1% (45). However, in Denmark, the same year, the proportion of forcibly detained patients within the hospital (converted from VH to IH after maximum 7 days of admission in hospital) was 8.1%. This shows that Danish Mental Health Care Law has a more open possibility to take care of the uncertainty GPs may have, without discharging the patient and then readmit the patient on an IH status.

For the patient, there might be changes in attitudes towards being hospitalized during the admission phase. Some studies have focused on the IH admission process from the patient point of view. The IH patients felt frightened, overwhelmed, confused and experienced a loss of control in the admission process. There were also concerns of disrupted family relationships. (46, 47). IH patients wished health personnel had more focus on contact with patients, closeness, and understanding. They wanted personnel to wait instead of acting. Physicians highlighted the importance of human contact and mutual relationship in the

hospital setting to prevent coercion (47). For family caregivers, the most common response to admission was relief, worry and guilt, and frustration by delays of getting help in acute situations (48).

In our study IH patients who said that they wanted admission had a better mental health state with better global functioning, a higher score on depression, fewer used drugs and evaluated with less suicidal danger before admission. These results are all descriptions of IH patients with less severe psychiatric symptoms, and - we could presume - with a better insight.

However, this findings are in contrast to results were IH patients in retrospect who justified their admission had a lower level of global functioning at admission (35).

The police are the only agency with the right to use force against individuals outside the psychiatric hospital (49). The police are only needed when patients are aggressive and have to be secured and prevented from harming self or others. This corresponds with our results that predictors of IH patients who wanted admission were; less transported by police, less aggressive and agitated behaviour and less likely to use drugs. Overall, IH patients who wanted admission may not have been in need for police assistance due to their better behaviour and not affected by use of illegal drugs.

As expected, in our study almost all VH patients wanted admission. The results seems to confirm that VH patients agreed it was a correct decision by the GP to admit them. However, 3.5% of VH said they did not want admission. We did not have a follow up question that could explain this finding. However, some VH patients have reported in several studies that being admitted to a psychiatric emergency unit in itself feels like a coercion (50-54). Our findings might also mean that IH are too often used in Norway since almost one third stated that they wanted to be hospitalized. Maybe GPs ought to use more time and investigated more

profoundly the patient's opinion of admission in a dialogue during the consultation and a tighter discussion with the hospital if IH is the best solution for the patient.

Strengths and limitations

The major strength of this study was a large and representative sample of consecutively admitted patients. In Norway, we have a national psychiatric health care system free of charge, and no acute private health care system. The inclusion of cases did not depend on consent from the patients.

Limitations were that we had multiple raters and locations with no possibility to carry out a reliability test between all raters. There could also be a delay until when the raters asked the question of wanting admission or not during the admission process, since we did not have registration of when the question was asked, and what kind of health professionals who asked the question.

Conclusions

Almost a third of involuntary admitted patients stated that they wanted admission. This raises serious questions about the practice around admission of involuntary referred patients, representing a possible threat to the patients' autonomy. A basis for a future dialogue about alternative ways of dealing with the patient's serious mental condition could be by using more time, more in-depth ask what options the patient could imagine for developing a positive admission by preserving the patient's autonomy and co-determination. As a result, there could be a reduction in unnecessary involuntary hospitalization and reduced burden on the health service in processing such admissions.

Abbreviations

VH: Voluntary hospitalization; IH: Involuntary Hospitalized; GAF: Global Assessment of Functioning (Function and Symptoms); HoNOS: Health of the Nation Outcome Scale; S.D: Standard Deviation; NSD: Norwegian Social Science Data Service

Declarations

Ethics approval

The study was approved by the Regional Committee for Medical Ethics Eastern Norway (reg. no. 04049), and the Norwegian Social Science Data Service and The Norwegian Data Inspectorate under the Norwegian Ministry of Labour and Government Administration, NSD (reg. no. 11074) . We received exemption from the duty of confidentiality by the Directorate of Health and Social Affairs (reg.no 05/3914) because the study was evaluated as of great social importance, and thus were approved to include those who did not have competence to give consent.

Disclosures / declaration of interest:

None

Availability of data and materials

The dataset is stored in a de-identified format at Department of adult psychiatry, Stavanger University Hospital, Stavanger Norway, and is available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Kjetil Hustoft - conception and design, analysis and interpretation, revising, final approval.

Tor Ketil Larsen - conception and design, analysis and interpretation, revising, final approval.

Kolbjørn Brønnick - data analysis, revising, final approval.

Inge Joa - revising, final approval.

Jan Olav Johannessen - revising, final approval.

Torleif Ruud - revising, final approval.

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Table 1. Proportion of voluntarily and involuntary hospitalized patients who stated they wanted or did not want admission.

	Voluntary hospitalized	Involuntary hospitalized	Total sample
	n (%)	n (%)	N (%)
Wanted admission	1755 (96.5)	366 (29.7)	2121 (69.5)
Did not want admission	64 (3.5)	866 (70.3)	930 (30.5)
Sum	1819 (100.0)	1232 (100.0)	3051 (100.0)

Table 2. Socio-demographic and clinical characteristics of involuntary hospitalized patients who stated that they wanted or did not want admission.

	Involuntary hospitalized patients							
	N	Wanted admission			Did not want admission			sig*
Mean		n (%)	S.D.	Mean	n (%)	S.D.		
Demographics								
Age	1230	39.3	365 (29.7)	14.6	40.7	865 (70.3)	17.0	0.172
Gender: male	1230		211 (57.5)			461 (53.4)		0.169
Country of origin - Norwegians	1216		321 (88.7)			755 (88.4)		0.992
Marital status								
-Unmarried			218 (60.4)			496 (59.0)		0.654
-Married/divorced/separated/widowed			143 (39.6)			345 (41.0)		
College or university	1133		56 (16.5)			115 (14.5)		0.530
Living situation, living alone	1126		203 (60.1)			439 (55.7)		0.189
Admission process								
Referring agent								
-GP	1062		61 (19.1)			178 (24.0)		0.047
- Emergency primary health care clinic			156 (48.9)			377 (50.7)		
-From psychiatric health care			102 (32.0)			188 (25.3)		
Referral source did not know the patient	1225		226 (62.4)			547 (63.4)		0.795
Transported by police	1185		109 (30.8)			511 (61.5)		<0.001
No previous contact with psychiatric services	1181		91 (25.9)			218 (26.3)		0.942
Admission, evening and night versus daytime	1195		272 (76.2)			600 (71.6)		0.125
Symptoms								
GAF at intake								
Symptoms	1203	34.1	359	11.5	31.0	844	12.4	<0.001
Function	1203	36.6	359	12.4	34.2	844	11.9	<0.001
HoNOS								
-Overactive, aggressive or agitated behaviour	1172	1.16	350	1.25	1.56	822	1.38	<0.001
-Non-accidental self-injury	1166	0.99	355	1.40	0.83	816	1.36	0.056
-Hallucinations and delusions	1162	1.65	348	1.46	1.92	814	1.49	0.004
-Depressed mood	1159	1.50	349	1.28	1.20	810	1.25	<0.001
Appeared intoxicated at admission	1218		39 (3.2)			103 (8.5)		0.319
Use of drugs** (score 3-5; misuse, dependency, need for institutionalization)	1211		116 (9.6)			207 (17.1)		0.015
Suicidal danger before admission	1228		159 (43.6)			438 (50.7)		<0.001
Suicidal danger in psychiatric ward (moderate or high)	1132		56 (15.7)			103 (13.3)		0.146
Patient fulfilled a suicide attempt during hospitalization	1217		6 (1.7)			17 (2.0)		0.820
Patient did self-harm during hospitalization	1216		15 (4.2)			51 (6.3)		0.267
Patient did physical attack on others during hospitalization	1222		28 (7.7)			98 (11.4)		0.149
Patient was physical attacked by others during hospitalization	1219		4 (1.1)			11 (1.3)		0.869

*p- value significant < 0.05

S.D = Standard Deviation

Table 3. Predictors for patients involuntary hospitalized who stated that they did want admission *

IH and wanted admission	P - value	Odds ratio	95 % confidence interval (C.I.)
Referring agent			
-Local out-of-office-hours casualty clinic	0.193	0.984	0.664 – 1.457
-General practitioner (GP)	ref	1.330	0.866 – 2.045
-From psychiatric health care	0.215	1.353	0.839 – 2.181
-Transported by police	0.000	0.272	0.194 – 0.381
Symptoms ratings at admission			
-GAF-S symptoms at intake	0.332	1.008	0.992 – 1.025
-GAF-F functioning at intake	0.566	1.005	0.988 – 1.022
-HoNOS aggression	0.050	0.880	0.763 – 1.000
-HoNOS hallucinations and delusions	0.469	0.953	0.837 – 1.086
-HoNOS reduced mood level	0.066	1.149	0.991 – 1.332
-drugs	0.000	1.263	1.117 – 1.429
-suicidal danger	0.880	0.990	0.870 – 1.127

IH = Involuntary Hospitalized

GAF = Global Assessment of Functioning (Function and Symptoms)

HoNOS = Health of the Nation Outcome Scale

*= GLIMMIX module of SAS Academic version 3.3 was used for generalized linear mixed modelling.

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