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

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Agenda

1. Involuntary Hospitalization (IH) is a controversial theme.
2. Use of Involuntary Hospitalization (IH) in Europe
3. The MAP study - Multi Center study of Acute Psychiatry
4. First article Results 1: Involuntary hospitalized patients (IH) – referred for hospitalization – what do we know?
5. Results 2: What predicts involuntary hospitalization?
6. Second article: Involuntary referred patients - converted to voluntary or stayed involuntary?
7. Predictors for conversion to voluntary hospitalization
1. Involuntary Hospitalization (IH) is a controversial theme;

• Is it ethical to admit a patient against his / her own will to get treatment?

• The Madrid Declaration on Ethical Standards for Psychiatric Practice from August 25th 1996 in article 4 states (World Health Organization. WHO resource book on mental health, human rights and legislation. 1992005.):
  – “When the patient is gravely disabled, incapacitated and / or incompetent to exercise proper judgment because of a mental disorder, the psychiatrists should consult with the family and, if appropriate, seek legal counsel, to safeguard the human dignity and the legal rights of the patient.
  – 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.”
Involuntary hospitalization affects media and Health ministers / Secretary of Health in Norway.

A normal day in psychiatry – wards are full

What do the health minister / secretary of health say: Involuntary admission and use of coercion must be reduced
Media has a focus on Involuntary Hospitalization (IH)

Norwegian national newspaper Says:

• Increased use of coercion towards patients
• One patient says "coercion saved my life"
Media has a focus on Involuntary Hospitalization

National Newspaper Verdens Gang:

The use of coercion in Norwegian psychiatry:

• has increased the last years. After a murder in a tram in Oslo in 2004:

• an acute psychiatric unit in Oslo, Norway reduced the use of coercion.
In the public many people have the opinion that Involuntary Hospitalization should be reduced (bestillerdokumentet til helseforetakene 2013).

• The Norwegian government (Ministry of Health and Care Services) ordered the Norwegian psychiatric health trusts to reduce IH with 5% in 2013 from the previous year (4).

• However, this seems to be a political choice, not based upon scientific evidence.

• We simply do not know what degree of IH that is needed or optimal.
• «In cooperation with the local municipalities there has to be a reduction in adult involuntary hospitalizations per 1000 inhabitants compared to 2016.»
2. Use of Involuntary Hospitalization (IH) in Europe

• International studies on the use of IH in psychiatric hospitals show great variability in rates:
  
  • **Portugal 6 per 100,000**
  
  • **Finland 218 per 100,000 inhabitants per year**

• **Ref:** Barbato & D'Avanzo, 2005; Mulder et al., 2008; Salize & Dressing, 2004.
## Involuntary Hospitalization in Europe

- EU-countries except Scandinavia
- **Spain** 1%
- **Portugal** 3.2%
- **France** 10.5–12.5%
- **England** 11.7–13.5%
- **Germany** 3.9–44.8%
- **Finland** 21.6%
- **Switzerland** 93%

- **Denmark** 4.6% *
- **Sweden** 30% *
- **Norway**
  - in Hedmark County 48% **
  - 1994 Ullevål sector 85%
- 3 psychiatric hospitals in 3 regions
  (range 27 to 67 percent) ***
- Tromsø outpatient clinic 59% ****
- In a national report 2001 - 2006, 35% *****

* = I 1997 to 2000, Salize & Dressing, 2004
** = Brabrand & Friis, 1997
*** = Iversen, Hoyer & Sexton, 2009
**** = Deraas, Hansen, Giaever, et al
***** = Bremnes, 2008; Bremnes, 2010
2. Norwegian Law
King Magnus, “the lawmaker” state law of Norway 1274 after Christ.

- The law said:
  The nearest heir in the family had the right and duty to take care and support the mentally ill.

No person should be treated as insane before an expert had proven their insanity.
Lawmaker King Magnus the 6th

- The heir who supported the mentally ill also decided over his/her personal liberty.

- Sandstone figure of king Magnus the lawmaker (1238 – 1280) at Stavanger Cathedral (started built 1125 after Christ).
3. The MAP project

- The Multi-center study of Acute Psychiatry included all cases of acute consecutive psychiatric admissions in 20 acute psychiatric units in Norway.

- Representing about 75 percent of the acute psychiatric units during a period of 3 months in 2005-2006.
Who starts an involuntary hospitalization admission process?

- In Norway it is often the **spouse of the patient, parents or other family members** who make contact with the primary health care system when they discover that the patient is in need of psychiatric hospitalization.
- They make contact with the **family doctor / the general practitioner (GP), or the county local out-of-office-hours clinic** to get an evaluation of the patients’ mental health status.
The patient has to be evaluated both by a physician outside hospital and one physician inside the hospital (the two medical doctor principle)

- Stavanger University Hospital
Process of voluntary / involuntary admission in Norway

*Criteria for hospitalization in the Norwegian Mental Health Act.

I. Discharge
II. §2-1. Voluntary hospitalization
III. §3-2. Involuntary observation (max stay 10 days): Criteria: There is a strong suspicion that the patient has a severe psychiatric disorder (i.e. psychosis) and this must be further observed.
IV. § 3-1. Involuntary hospitalization with no time limit: Criteria: The patient has a serious mental disorder (i.e. psychosis) and there must be an urgent need for treatment and / or life threatening danger to self or others.

Fig. 1. Hospitalization process for involuntary admission in Norway.
Subjects and statistics

- 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.
- 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.
- There were no exclusion criteria.
**HoNOS**

Health of the Nation Outcome Scales (HoNOS)

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.

**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).
Global Assessment of Functioning GAF axis IV in DSM-IV

- The scores were split into:
  - **symptom (GAF-S)**
  - **function (GAF-F)**


<table>
<thead>
<tr>
<th>GAF-S</th>
<th>GAF-F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ingen eller minimale symptomer</td>
<td>90</td>
</tr>
<tr>
<td>F.eks mild eksamensangst.</td>
<td>81</td>
</tr>
<tr>
<td>• Forventede og forbigående reaksjoner på</td>
<td>80</td>
</tr>
<tr>
<td>psykososiale stressorer</td>
<td></td>
</tr>
<tr>
<td>F.eks konstantildevasedfanger etter en krangel</td>
<td>71</td>
</tr>
<tr>
<td>• Nøytrale symptomer</td>
<td>70</td>
</tr>
<tr>
<td>F.eks lettere nedstemning eller moderate</td>
<td>61</td>
</tr>
<tr>
<td>innsnittspentvaner.</td>
<td></td>
</tr>
<tr>
<td>• Moderate symptomer</td>
<td>60</td>
</tr>
<tr>
<td>F.eks avhengede følelser, omstendelig språk</td>
<td>51</td>
</tr>
<tr>
<td>og/eller sporadiske panikkister.</td>
<td></td>
</tr>
<tr>
<td>• Alvorlige symptomer</td>
<td>50</td>
</tr>
<tr>
<td>F.eks selvmodskanker eller alvorlige</td>
<td>41</td>
</tr>
<tr>
<td>tvangstiltak.</td>
<td></td>
</tr>
<tr>
<td>• En del forstyrrelse i realitetstesting,</td>
<td>40</td>
</tr>
<tr>
<td>kommunikasjon eller stemningskier</td>
<td></td>
</tr>
<tr>
<td>Talen er av og til ulogisk, uklar eller irrelevant.</td>
<td>31</td>
</tr>
<tr>
<td>Svikende dømmekraft.</td>
<td></td>
</tr>
<tr>
<td>• Atferden er betydelig påvirket av</td>
<td>30</td>
</tr>
<tr>
<td>vrangforestillinger, hallucinasjonen eller alvorlig</td>
<td></td>
</tr>
<tr>
<td>forstyrrelse i kommunikasjon or dømmekraft</td>
<td></td>
</tr>
<tr>
<td>F.eks av og til se sammenhengende, svært</td>
<td>21</td>
</tr>
<tr>
<td>upassende atferd eller stadig oppatt av selvmod</td>
<td></td>
</tr>
<tr>
<td>F.eks selvmodskanker uten klar forventning om</td>
<td>20</td>
</tr>
<tr>
<td>død, er ofte voldelig, manisk, stum eller</td>
<td></td>
</tr>
<tr>
<td>konfabulerende.</td>
<td>11</td>
</tr>
<tr>
<td>F.eks gjerter voldshandlinger eller alvorlig</td>
<td>10</td>
</tr>
<tr>
<td>suidalhandling med klar forventning om å do.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
4. Results 1: Involuntary hospitalized patients (IH) – referred for hospitalization – what did we find?

- **56 %** of all patients were referred for Voluntary hospitalization § 2-1 (VH).
- **44 %** (1453) of the patients were referred for IH.
- Of all patients included:
  - **28 %** were referred for involuntary observation (§ 3-2, maximum duration 10 days)
  - **16 %** for involuntary hospitalization with unlimited duration (§ 3-3).

Results – demography at intake

- The mean age for referred IH was 40.4 years,
- 53.9 % of involuntary referred patients were men.
Involuntary patients (IH) 

- Were older, 
- more often male, 
- more often of non-Norwegian origin, 
- unmarried 
- and had lower level of education (table 1). 

- 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
Involuntary patients had:

- Less often responsible for children
- were less frequently motivated for admission
- less contact with psychiatric services before admission.
- Most patients were referred because of a deterioration of their psychiatric illness.
Police transport to hospitalization:

• 25.9% of all the patients were transported by police to the acute psychiatric unit
Police transport to hospitalization:

- 8% of voluntary hospitalized (VH) and
- 49% of involuntary hospitalized (IH) patients were transported to the acute psychiatric unit by the police.
Physician who referred did not know the patient

- In Norway every citizen has their own General Practitioner (GP).
- 63% of involuntary hospitalized (IH) patients were referred by someone who did know the patient.
- Referred from local out-of-office clinic.
Drug use

- Involuntary hospitalized (IH) patients were significantly influenced by the use of alcohol or drugs during the last 6 months.
- 26.6% of IH and
- 22.3% of VH abused or had a dependency on alcohol or drugs at admission.
Our results compared to other studies: What do we know?

- Our findings correspond well to a Norwegian study which reported that 34 percent of all patients were accompanied by police;
- 24.4 percent of VH and
- 40.7 percent of IH patients
  Deraas, Hansen, Giaever, et al., 2006.
- 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, Clausen, Kristensen, et al.
5. Results 2: What predicts involuntary hospitalization?

- Contact with police before / under admission process
Predictors of involuntary hospitalization:

• the referral agency (physician at out of hours) clinic did not know the patient.
Predictors of involuntary hospitalization:

- Aggression
  - High HoNOS score
Predictors of involuntary hospitalization:

• Hallucinations and delusions
  – High HoNOS score
Predictors of involuntary hospitalization:

• Increased level of psychiatric symptoms
  – lower GAF S (Global Assessment of Function Symptoms)
Norwegian Law in 2017

• In Norway general practitioners (GP's) or other physicians working outside a psychiatric hospital 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 clinical psychologist finally decides whether the patient's will be voluntary (VH) or involuntary (IH) hospitalized within a 24 hour period.
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 §3–3 with unlimited duration:

- 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.
6. Second article: Converted to voluntary or stayed involuntary?

1. To identify the frequency patients on involuntary hospitalization were converted to voluntary hospitalization within 24 hours 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 hour observation period.
Out of 3338 patients referred for admission
- 1468 (44%) were Involuntary Hospitalized (IH)
- 1870 (56%) were Voluntary Hospitalized (VH).

After re-evaluation
1148 (78.2%) remained IH,
while 320 patients (21.8%) were converted to VH.
Figure 1. The pathway of IH after specialist reevaluation in 20 acute psychiatric units in Norway.

Referred IH
N = 1468

Specialist re-evaluation

VH
21,8 %
n=320

IH
78,2%  
n=1148

Physician / General Practitioner
outside hospital

Psychiatrist or certified clinical psychologist reevaluation within 24 hours
within hospital
Before specialist reevaluation %

- § 3-2: 63.1%
- § 3-3: 34.9%
- § 2-1: 0.9%
- Court dec.: 1.1%
- Child/Social: 0.0%

After specialist reevaluation %

- § 3-2: 45.6%
- § 3-3: 32.0%
- § 2-1: 21.8%
- Court dec.: 0.4%
- Child/Soc: 0.2%
Table 2: Conversion within the 2 main involuntary paragraphs (§ 3-2 and § 3-3).

<table>
<thead>
<tr>
<th>Paragraph status</th>
<th>At intake</th>
<th>&lt; 24 hours re-evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Involuntary</td>
<td>Voluntary (of all pts)</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Involuntary § 3-2</td>
<td>27.7</td>
<td>18.1</td>
</tr>
<tr>
<td>Involuntary § 3-3 unlimited length of stay</td>
<td>15.4</td>
<td>11.7</td>
</tr>
<tr>
<td>Sum</td>
<td>43.1</td>
<td>29.8</td>
</tr>
</tbody>
</table>
7. Predictors: Patients who were referred involuntary and converted to voluntary stay after specialist evaluation (IH→VH):

• There was a reduced Odds Ratio for conversion from involuntary referred to voluntary hospitalization if:
  • The patient wanted admission.
  • Used alcohol.
    – Clinically may have been suicidal, but after the alcohol level is reduced the suicidal thought may disappear.
Predictors: Patients who stayed involuntary (IH→IH) after specialist evaluation:

- Had a high score on HoNOS hallucinations and delusions,
- A low score on Global Assessment of Functioning (GAF) symptom score (they were very sick).
- Did not want admission.
Question:
What may be the best process for evaluation of Involuntary referred patients?

- Re-evaluation by a specialist in psychiatry (psychiatrist or psychologist)?
- or
- A judge in the court system?
Thank you for your attention!
Predictors of involuntary hospitalizations to acute psychiatry

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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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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 (VIH), 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 wards in health trusts in Norway across 3 months in 2005-06, representing about 75% of the psychiatric acute emergency units in Norway. The incidence of conversion from involuntarily hospitalization (IH) to voluntary hospitalization (VIH) was analyzed using generalized linear mixed modeling. Out of 3338 patients referred for admission, 1468 were IH (44.1%) and 1870 were VIH. 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 VIH.

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Patients who wanted admission but were involuntary hospitalized – who are they?
Predictors of involuntary hospitalization:

Table 4
Predictors of involuntary hospitalizations (IH) to 20 acute psychiatric units in Norway.

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

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