

**De bij-werkingen van**  
*major tranquilizers,  
 neuroleptica,  
 antipsychotica,  
 stemmings stabilisatoren  
 slaapmedicatie?...*

**Wat zegt het verleden ons over de toekomst ?  
 Wat niet weet maar wel deert.**

Erik Hoencamp






## Om je te schamen

- Eind 70'er jaren megadosering.....Haloperidol 300mg daags ,fluphenazine decanoaat 50 mg per ....
- Gebruik van de UKU, heeft u last van.....
- Afwijzing artikel.
- Onrust in het weekeinde na depot.
- Wat je niet weet zie je niet wat je niet ziet weet je niet.

## Antipsychotica-Depot is ook ideologie

- Oostenrijk depot alleen bij gedwongen behandeling
- USA depot aanvankelijk alleen fluphenazine, haloperidol.
- Amsterdam depot dat deed je gewoon niet.
- Duitsland "niedrig dosierten neuroleptica"voor niet psychotische patienten inclusief depot"lmap".

**Patient requests and attitude towards neuroleptics**  
 E. HOENCAMP, H. KNEGTJERING, J.J.S. KOOY, A.E.G.M. VAN DER MOLEN



Hoencamp E, Knegtjering H, Kooy JJS, van der Molen AEGM. Patient requests and attitude towards neuroleptics. Nord J Psychiatry 1995;49 Suppl 35:47-55. Oslo. ISSN 0803-9496.

Little is known about care delivery systems, patients' requests and appreciation of care of patients attending an outpatient (depot) neuroleptic clinic. Although the concepts of expectancy and satisfaction remain methodologically debatable and are multi-dimensional, they are important variables in the process of care and its ultimate outcome, i.e. compliance. In this study, outpatients receiving oral or depot neuroleptics as maintenance therapy are compared using a Patient Request Scale and a Neuroleptic Evaluation and Attitude Scale. No differences were found between either group on sociodemographic and psychiatric history related variables. Both groups of patients have a comparable attitude towards their disease and medication use, as reflected in knowledge of the medication they use and the reason why. The appreciation of care is comparable, but their treatment requests differ: the patients receiving oral medication are more comparable with the general population and could be described as more psychologically minded. Patient attitude, requests and appreciation of care are of relevance in the quality control systems that need to be developed in the maintenance therapy of psychotic patients.

□Attitudes, Depot neuroleptics, Quality control.

E Hoencamp, MD, Ph D, Psychiatric Centre, Bloemendaal Monstersweg 93, 2553 RJ The Hague, PO Box 33002 2303 AA The Hague, The Netherlands.

Cupula selecta


*Subjectieve bijwerkingen van neuroleptica*

R.L. NOLL, E. HOENCAMP EN W.A. NOLLEN

1991 NTvG

## Patient requests and attitude towards neuroleptics

E. HOENCAMP, H. KNEGTJERING, J.J.S. KOOY, A.E.G.M. VAN DER MOLEN

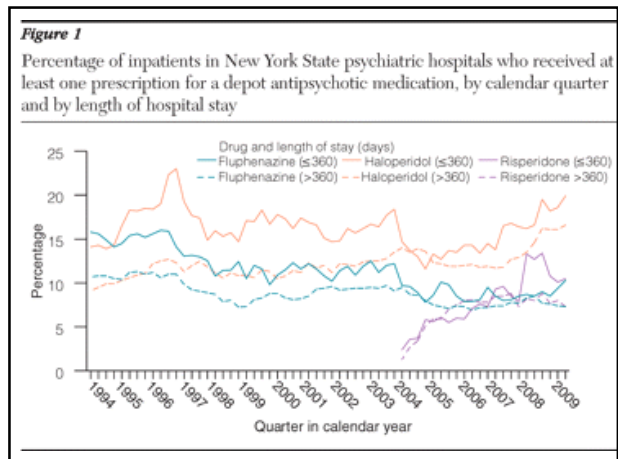


Hoencamp E, Knegtjering H, Kooy JJS, van der Molen AEGM. Patient requests and attitude towards neuroleptics. Nord J Psychiatry 1995;49 Suppl 35:47-55. Oslo. ISSN 0803-9496.

Little is known about care delivery systems, patients' requests and appreciation of care of patients attending an outpatient (depot) neuroleptic clinic. Although the concepts of expectancy and satisfaction remain methodologically debatable and are multi-dimensional, they are important variables in the process of care and its ultimate outcome, i.e. compliance. In this study, outpatients receiving oral or depot neuroleptics as maintenance therapy are compared using a Patient Request Scale and a Neuroleptic Evaluation and Attitude Scale. No differences were found between either group on sociodemographic and psychiatric history related variables. Both groups of patients have a comparable attitude towards their disease and medication use, as reflected in knowledge of the medication they use and the reason why. The appreciation of care is comparable, but their treatment requests differ: the patients receiving oral medication are more comparable with the general population and could be described as more psychologically minded. Patient attitude, requests and appreciation of care are of relevance in the quality control systems that need to be developed in the maintenance therapy of psychotic patients.

□Attitudes, Depot neuroleptics, Quality control.

E Hoencamp, MD, Ph D, Psychiatric Centre, Bloemendaal Monstersweg 93, 2553 RJ The Hague, PO Box 33002 2303 AA The Hague, The Netherlands.



Wat behandelen we eigenlijk met antipsychotica en vanuit welk perspectief?

- Patient
- Emotie en existentie
- Omgeving
- Expressie en gedrag

Man 65 ,wacht 50 jaar op vriendin.

Man 45 jaar krijgt medicatie via implantaat.

Onrust op de afdeling. Meer is de vijand van het goede .

Dag voor ontslag nog even depot.

Je moet echt gek zijn om antipsychotica te *willen* gebruiken

- Je moet kiezen tussen twee kwaden.
- Geen medicatie nemen is een extra reden om in de relatie met de patient te investeren.
- Geen medicatie willen nemen door patient is een respectabele gedachte alwaar de patient helaas soms een dure prijs voor moet betalen.
- Gebruik depot niet met de negatieve indicatie ; laatste redmiddel.

Weten wij wat de werkingen zijn op de lange termijn van antipsychotica ?

- Nee, ik ben bang van niet.
- Als je denkt dat je of we het wel weten wens ik jullie heel veel onderzoek gelden toe omdat te onderbouwen.
- Strategie van de vlucht voorwaarts steeds iets nieuws proberen , magisch denken?

## Het meten van gewenste en ongewenste ervaringen

Hugo Wolters

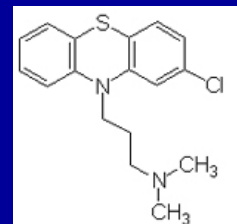
UMCG Groningen, Kenniscentrum Schizofrenie  
GGZFriesland

hugo.wolters@ggzfriesland.nl

Sponsor unrestricted grant: Janssen-Cilag, Eli Lilly,  
Astra-Zeneca, Rob Giel Onderzoekcentrum



- "One half of mankind does not know how the other half lives" according to Warmark
- Perceval (1838) accused the staff of treating him "as if I were a piece of furniture, an image of wood, incapable of desire or will as well as judgement"



## Clorpromazine veranderde de wereld

- De kalmerende effecten op patiënten waren zo duidelijk dat het verminderde lawaai van de instelling zelfs de mensen in de omgeving opviel (Thullier, 1980)
- Een grote verandering in denkwijze over psychiatrie: medicatie leidde tot een medische of farmacologisch begrip van schizofrenie en psychose. (Duval et al., 2000).
- Hunter and Macalpine (1974) "Patients are victims of their brain rather than their mind. To reap the rewards of this medical approach, however, means a reorientation of psychiatry, from listening to looking."

## Geschiedenis

- Jaren '60:
  - In wetenschap: van kwalitatief onderzoek naar kwantitatief onderzoek.
  - Nieuwe generatie psychiaters wilden dat psychiatrie zich net zo zou ontwikkelen als de rest van de medische wetenschappen.
  - Ontwikkeling van meetinstrumenten ten behoeve van juiste diagnose
- Jaren '80:
  - Verandering van focus van simpel verlengen van leven naar verbeteren van kwaliteit van leven (Kennedy, 2004)
  - Ontwikkeling van bijwerkingenlijsten (bv UKU) en kwaliteit van leven vragenlijsten

### • Heden

- Efficiëntie en DBC's
- Evidence Based Medicine: bevat ook voorkeuren van patiënten, naast klinische vaardigheden en wetenschappelijk bewijs als basis voor medische beslissingen (Sackett, 1997)

## Uitgangspunten voor nieuw meetinstrument

- Ervaringen van patiënt vormen de basis
- Uitgegaan van een brede definitie: "Ervaringen of veranderingen op het lichamelijk, geestelijk en sociaal vlak die door de patiënt worden toegeschreven aan de antipsychotica."
- Zowel positieve als negatieve ervaringen

## Development of the SRA

Open and (semi) structured Interviews

N=77

Item construction and grouping into subscales

N=320

reliability

validity

Internal consistency

Test-retest

Construct concurrent and external

## Sra-vragenlijst

- 77 items
- 3 punts schaal (nee, ja in enige mate, ja in sterke mate)
- Zelfstandig in te vullen
- 15 a 20 minuten

## SRA-subschalen

- Herstel
- Gewichtstoename
- Sexuele anhedonie
- Sedatie
- Toegenomen slaap
- EPS
- Verminderde sociabiliteit
- Affectieve vervlakking

## Vraag

- Kunnen patiënten met een psychotische kwetsbaarheid wel goed een vragenlijst invullen?

## Betrouwbaarheid

Wat is betrouwbaarheid?

De betrouwbaarheid van empirisch onderzoek betreft de consistentie en de repliceerbaarheid van de methoden, de omstandigheden en de resultaten van dat onderzoek. Betrouwbare uitkomsten hebben weinig spreiding.

## Interne betrouwbaarheid



## Interne betrouwbaarheid



## Test-hertest betrouwbaarheid

- Na 1 week verwacht je dat patiënten die gedurende enige tijd antipsychotische medicijnen gebruiken, niet geheel andere ervaringen hebben.

## Herstel

- Door de antipsychotische medicijnen
  - Voel ik me meer mezelf
  - Ben ik stabiel
  - Kan ik helderder denken

Betrouwbaarheid  $\alpha$  .93

Test hertest betrouwbaarheid .82

## Gewichtstoename

- Door de antipsychotische medicijnen:
  - Heb ik meer eetlust
  - Heb ik vaker een hongergevoel
  - Ben ik te zwaar geworden

Betrouwbaarheid  $\alpha$  .82

Test hertest betrouwbaarheid .85

## Seksuele anhedonie

- Door de antipsychotische medicijnen
  - Heb ik minder behoefte aan seks
  - Heb ik meer moeite een orgasme te krijgen

Betrouwbaarheid  $\alpha$  .80

Test hertest betrouwbaarheid .39

## Sedatie

- Door de antipsychotische medicijnen
  - Reageer ik trager
  - Denk ik trager
  - Voel ik me eerder geestelijk moe

Betrouwbaarheid  $\alpha$  .79

Test hertest betrouwbaarheid .78

## Toegenomen slaap

- Door de antipsychotische medicijnen
  - Slaap ik teveel
  - Heb ik meer slaap nodig
  - Heb ik meer moeite met wakker worden

Betrouwbaarheid  $\alpha$  .75

Test hertest betrouwbaarheid .83

## EPS

- Door de antipsychotische medicijnen
  - Voel ik me onrustiger
  - Trekken mijn spieren meer
  - Heb ik stijvere spieren

Betrouwbaarheid  $\alpha$  .69

Test hertest betrouwbaarheid .76

## Verminderde sociabiliteit

- Door de antipsychotische medicijnen
  - Heb ik vaker geen gedachten
  - Heb ik minder zin in sociale contacten
  - Heb ik meer moeite een gesprek op gang te houden

Betrouwbaarheid  $\alpha$  .78

Test hertest betrouwbaarheid .75

## Affectieve vervlakking

- Door de antipsychotische medicijnen
  - Zijn mijn emoties afgevlakt
  - Zijn mijn emoties te afgevlakt
  - Heb ik minder gevoel

Betrouwbaarheid  $\alpha$  .79

Test hertest betrouwbaarheid .60

## Betrouwbaarheid

Scale	Mean (SD)	Internal consistency	Test-retest reliability
Recovery	41.7 (SD=11.1)	.93	.82
Weight gain	7.0 (SD=2.6)	.82	.85
Sexual anhedonia	4.4 (SD=1.8)	.80	.39
Sedation	9.9 (SD=2.9)	.79	.78
Affective flattening	4.6 (SD=1.7)	.79	.60
EPS	7.0 (SD=2.1)	.69	.76
Diminished sociability	8.5 (SD=2.6)	.78	.75
Increased sleep	5.3 (SD=1.9)	.75	.83
Total unpleasant effects	72.4 (SD=14.6)	.92	.89

## Vraag

- Kunnen patiënten wel goed hun ervaringen toeschrijven aan de medicatie?

## Validiteit

- Validiteit bedoelt of we wel meten wat we in feite wensen te meten. Zijn onze metingen geldig of 'valide' voor 'het begrip zoals bedoeld'? Om deze vraag te beantwoorden moeten we eerst weten wat we willen meten.

## Construct validiteit

	Clo	Ris	Ola	Que	Clas
Herstel	○	○	○	○	○
Gewichtstoename	++	+	++	○	+
Sexuele Anhedonie	○	++	○	○	++
Sedatie	++	○	+	+	
Toegenomen slaap	++	○	+	+	
EPS	○	++	○	○	++
Verminderde sociabiliteit					
Affectieve vervlakking					
Totaal ongewenste effecten					

## Resultaten

	Clo	Ris	Ola	Que	Clas
Herstel	○	○	○	○	○
Gewichts toename	++	+	+++	+	○
Seksuele anhedonie	○	○	○	○	○
Sedatie	○	○	○	○	○
Toegenomen slaap	++	○	○	○	○
EPS	○	++	○	○	++
Verminderde sociabiliteit		-			+
Affectieve vervlakking					
Totaal ongewenste effecten					

## Ja, maar

- dat geldt misschien wel voor een groep, maar mijn patiënt schrijft ervaringen toe aan de medicatie en dat klopt helemaal niet.

## 2 citaten

- Naber: een onderscheid tussen farmacologische en ziekte ervaringen is niet mogelijk voor de patiënt en voor psychiater

## Validiteit

- Validiteit is meten wat je wilt meten

- S.J. Wolters: "Het gaat dus niet om de waarheid, maar om het managen van de perceptie"

## Conclusies

- Patienten zijn in staat om met de SRA op een valide en betrouwbare manier hun gewenste en ongewenste ervaringen te rapporteren
- Om Evidence Based Medicine te praktizeren is het perspectief van de patiënt onontbeerlijk
- SRA is een tool die inzicht geeft in de ervaringen van patienten en dus bruikbaar is in Evidence Based Medicine



## Instituten en personen

- Universitair Medisch Centrum Groningen
- GGZ Groningen
- Mesdag kliniek (Arieke Prozee)
- GGZ Drenthe (Margreet Schilthuis)
- GGZ Friesland
- Stichting adhesie
- GGNet
- GGZ Eindhoven (Paul Raaijmakers)
- Parnassia (Annemarie Schoenmakers)

## The Patient's Perspective of Antipsychotic Treatment

Dieter Naber  
Department of Psychiatry  
University of Hamburg

Groningen 2010

1

## Scientific interest in patient's perspective and QoL under antipsychotic treatment

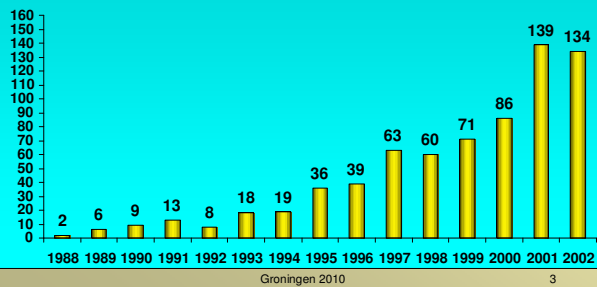
- Collins et al (1991) - measurement of therapeutic response in schizophrenia; literature search of clinical trials using key words 'drug' and 'psychosocial'
  - positive symptoms 98%
  - negative symptoms 19%
  - self-report or ratings of significant others 13%
- McKenna (1997) - measurement of QoL in schizophrenia; literature search
  - 500 papers
  - only 2 studies assessed the impact of antipsychotics on QoL (Meltzer et al 1990; Awad 1992)

Groningen 2010

2

## Interest in Quality of Life in schizophrenia

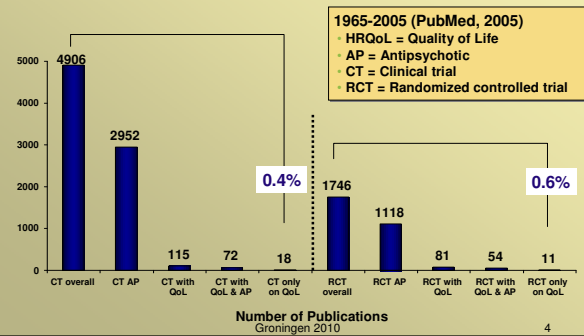
Number of publications from 1988 to 2002  
(Medline, Pub-Med. Recherche, 2003)



Groningen 2010

3

## HRQoL and SW in schizophrenia: A neglected field!



Number of Publications  
Groningen 2010

4

## Main reasons for neglecting QoL and SW in schizophrenia<sup>1</sup>

- Lack of agreement on definition, on essential components of QoL or SW and on rating scales
- Self-rated judgment of QoL or SW is often disqualified as unreliable
- Before availability of atypicals, only limited ways to consider patient's complaints
- Since 1996 official outcome criteria in psychiatry

Groningen 2010

5

1. Lambert et al. *Pharmacopsychiatry* 2003; 36(Suppl 3):181-90

## Quality of life measurement in schizophrenia

- Numerous scales are available (generic versus disease-specific, self- versus expert-rated). Comparative data on variables such as sensitivity to treatment effects, predictive power regarding compliance or chance of remission are very limited.
- Disease-specific scales seem to be more sensitive than generic scales, self-rated scales are less time consuming and might be more useful than interview-based scales.
- Quality Of Life scale (Heinrichs et al., 1984) is most widely used. 21-item semi-structured interview to access QoL in relation to deficit symptoms and impaired functioning. Total score and 4 subscores, 45 minutes.

Groningen 2010

6

### Subjective effects of antipsychotics

- Many schizophrenic patients treated with typical antipsychotics report not only motor effects, but also emotional and affective restrictions – 'I feel like a zombie'. These patients benefit particularly from atypicals.
- Complaints are well known (pharmacogenic depression, akinetic depression, pharmacogenic anhedonia, neuroleptic-induced deficit syndrome), but barely investigated. They are often too subtle to be detected by objective examination and the common rating scales.
- Symptoms are often difficult to differentiate from negative symptoms of schizophrenia.

Groningen 2010

7

### Three personal experiences on the relevance of subjective effects

- Clozapine (1975-1985). Many patients report that under clozapine they "feel better" than under previous neuroleptic drugs, objectively barely noticeable
- Clinical Trial of Partial Dopamine Agonist. In the open trial, the antipsychotic was very well tolerated. Most patients regretted discontinuation when study was completed. In the controlled trial, no difference to haloperidol. However, in comparison to previous neuroleptics, patients favoured significantly the experimental drug.
- Dysphoric, anhedonic experience, induced by 2-5 mg haloperidol

Groningen 2010

8

### Patients' perceptions of efficacy differs from clinicians' assessment

- In a six-months open trial, patients receiving atypical antipsychotics reported fewer side effects, better subjective efficiency, better QoL and less neuroleptic dysphoria than patients treated with classical antipsychotics ( $p < .05$ )
- However: These perceived benefits were not reflected in the clinician-rated (objective) measures of psychosocial functioning and QoL

Groningen 2010

9

Voruganti et al., 2000; Naber et al, 2000

### Subjective well-being under neuroleptics (SWN)

- The self-report of 20 items (10 positive, 10 negative, Lickert scale) shows sufficient internal consistency (Cronbach's  $\alpha$  .92) and good construct validity. Most patients do not need more than 5-10 minutes to fill it out.
- There are 5 subscores (emotional regulation, self-control, social integration, mental and physical functioning).
- SWN data indicate relevance for compliance and for the chance to reach remission.
- Correlations to Heinrichs QLS during short- and long-term treatment  $r = .4-.7$ .

Groningen 2010

10

### Self-report of well-being by schizophrenic patients

- All statements refer to the past 7 days.
- Total score, 5 subscores (e.g. physical functioning)

	Not at all	A little	Somewhat	Noticeable	Much	Very much
My body is a burden to me						
I feel very comfortable with my body						
I feel weak and exhausted						
My body feels familiar						

Groningen 2010

11

### Are schizophrenic patients able to self-rate?

- 63%–95% of schizophrenic patients mostly in remission were able to self rate
  - their affective state (Craig and Van Natton, 1971; Weissmann, 1976; Brown et al, 1979; Maurer and Dittrich, 1979; Hogan et al, 1983; Bandelow et al, 1990)
  - or their quality of life (Naber et al, 1995; Voruganti et al, 1998; Khatri et al., 2001; de Haan et al., 2002; Voruganti et al., 2002; Liraud et al., 2004)
  - in a reliable manner.

Groningen 2010

12

### Psychometric Properties of the Subjective Well-Being Under Neuroleptics Scale

L. de Haan et al, Psychopharmacology, 2002

"Almost all patients were capable of reproducing their subjective experience in a consistent way. The SWN may be used in evaluating differential effects of anti-psychotics and dose on subjective well-being"

Groningen 2010

13

### Improvements of Psychopathology and Subjective Well-Being under Atypical Neuroleptics are not strongly related

- Relationship between individual changes of SWN and PANSS in 97 schizophrenic in-patients treated with olanzapine (n=36), risperidone (n=28) or clozapine (n=36) for 30-58 days
- $r = -0.29, p < 0.006$

Naber D, et al. *Schizophr Res.* 2001;50(1-2):79-88.

Groningen 2010

14

### Relationship between SWN and Psychopathology (Karow et al., 2005)

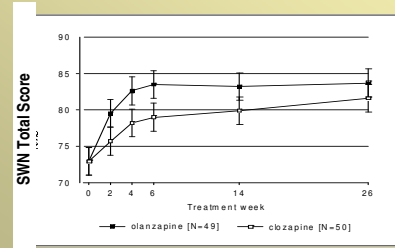
PANSS syndromes	Baseline (n=84)	Discharge 42±28 days (n=84)	Follow-up 6 months (n=39)
Hostile Excitement	-.01	-.37*	-.15
Negative Syndr.	-.34*	-.22	-.43*
Cognitive Syndr.	-.12	-.26	-.10
Positive Syndr.	-.13	-.33*	-.09
Depression	-.30*	-.38*	-.67*

Correlation Coefficient \*p<.01

Groningen 2010

15

### Double-blind Comparison of Olanzapine and Clozapine



$\Delta$  SWN -  $\Delta$  PANSS,  $r = -.45, p = .003$

Naber et al., Acta Psychiat Scand 2005

Groningen 2010

16

### Animal data on affective changes with (typical) antipsychotics

- Extensive animal data indicate the importance of mesocortical dopamine (mostly D2) systems in mediating reward behaviour
- Several animal studies have demonstrated that typical antipsychotics strongly and negatively affect reward system(s) in a variety of models
- Less or none inhibition of reward systems by atypical antipsychotics ?

Groningen 2010

17

### Subjective Experience and Striatal Dopamine D2 Receptor Occupancy in Patients With Schizophrenia Stabilised by Olanzapine or Risperidone

- After a stable dose of olanzapine (N=15, 14.7 ± 5.8 mg) or risperidone (N=7, 4.1 ± 0.9 mg), subjective well-being was assessed with the SWN, dopamine D2 receptors' occupancy with <sup>123</sup>I-IBZM-SPECT
- In addition, PANSS, MADRS, and EPMS were assessed
- Dopamine D2 receptor occupancy was related to subjective experience ( $p = -.03/-.05$ ), depression ( $p = .02$ ), and negative symptoms ( $p = .02$ ), but not to extrapyramidal symptoms

Groningen 2010

de Haan L, et al. *Am J Psychiatry.* 2000;157(6):1019-1020.

18

### Adverse subjective experience with antipsychotics and its relationship to striatal and extrastriatal D<sub>2</sub> receptors: a PET study in schizophrenia (Mizrahi et al., 2007)

- In 12 patients, treated with 1 mg RIS (n=2), 4 mg RIS (n=3), 2,5 mg OLA (n=3) or 15 mg OLA (n=4) striatal and temporal dopamin-D<sub>2</sub>-occupancy (50-91%, 4-95%) as well as PANSS, SWN and motor symptoms were assessed.
- SWN and PANSS were not significantly correlated (r=0,11, p=0,78) but SWN with Simpson-Angus Score (r=-0,71, p=0,047).
- SWN and D2-occupancy were significantly correlated in the striatum (r=-0,66, p=0,01) as well as in the temporal lobe (r=-0,76, p=0,003).

Groningen 2010 19

### Impact of Side Effects on SWN

- Under treatment with typical AP, EPS are most disturbing
- Under atypical AP: sexual SE, weight gain and sedation
- High interindividual variation!

Groningen 2010 20

1. Putzhammer et al. Pharmacopsychiatry 2005; 38: 132-8

### Early detection of incomplete remission with the SWN-K<sup>1</sup>

727 patients with SWN-K ≤ 60 at admission, treated with amisulpride for 12 weeks

SWN total scores: SW responder (n=507) and SW non-responder (n=220) at baseline, week 4, and week 12.

SWN-K response = increase ≥ 20%

CGI-S, SOFAS, PANSS pos, PANSS neg scores at baseline, week 4, and week 12.

1. Lambert et al. Acta Psychiatrica Scand, 2006.

Groningen 2010 21

### HRQoL (SWN-K) as predictor of response (II)<sup>1</sup>

631 patients, 12 weeks follow-up PANSS pos & neg, CGI-S, SOFAS, and SWN-K were transformed into measures ranging from 0-100 and added to a combined outcome variable (=OUT)

Measure	Beta	T	p
PANSS T0	,14	3,28	,001
CGI T0	,13	3,11	,002
SOFAS T0	,22	5,12	,000
SWN-K T0	,06	1,45	,15

Measure	Beta	T	p
<b>Change T0 to T4</b>			
PANSS	,09	2,21	,027
CGI	,19	4,99	,000
SOFAS	,15	4,08	,000
SWN	,44	10,69	,000

Linear regression of baseline scores with OUT at 3 months

1. Karow et al. J Clin Psychiatry, in preparation.

Groningen 2010 22

### Prediction of 5-year remission by a comparative application of PANSS and SWN-K<sup>1</sup>

- 110 patients with first episode of schizophrenia
- Continuous symptomatic remission between month 6 and month 60

Change of SWN-K and PANSS values in the first 6 weeks

No symptomatic remission (n=74) vs Symptomatic remission (n=30) for SWN-K (p=.0004)

No symptomatic remission (n=74) vs Symptomatic remission (n=30) for PANSS (p=.095)

1. DeHaan et al. Pharmacopsychiatry, 2008

Groningen 2010 23

### Relationships among SWN and other outcome measures in schizophrenia (Chen et al. 2010)

- Data of a randomised multi-centre study of chronic schizophrenia patients (n=628) were examined to investigate the relationship among several outcome measures, including PANSS, MADRS, Schizophrenia Objective Functioning Instrument (SOFI), Quality of Life Scale (QLS), and the SWN.
- Two analytic approaches were used: 1) pairs analysis and 2) factor analysis.
- Findings suggest some redundancy, particularly among the clinician-rated functional and quality of life measures. Only a small proportion of the variance in SWN was explained by the clinician-rated measures, suggesting that the SWN captures unique information.

Groningen 2010 24

## Conclusions

- When evaluating the effects of antipsychotic drugs, other psychopharmacological or psychosocial treatment, the assessment should not only include psychopathology but also subjective quality of life.
- Disease-specific scales should be preferred. In patients, no more acutely psychotic and without relevant cognitive deficits, their perspective is fully explored only by self-rated scales.
- Subjective quality of life/ well-being is strongly related to compliance and to the chance of remission.

Groningen 2010

25