The effects of abrupt antipsychotic discontinuation in cognitively
impaired hospitalised older persons:
a pilot study

Azermai M, Petrovic M, Engelborghs S, Elseviers MM, Van der Mussele S, Debruyne H, Van
Bortel L, Vander Stichele RH.

Background

Antipsychotic use for behavioural and psychological symptoms of dementia (BPSD) is controversial. Guidelines advise to reduce antipsychotics given the adverse effects and limited efficacy, to limit dose and treatment duration as well as to undertake discontinuation.

Methods

A pilot study with 40 hospitalised geriatric cognitively impaired patients, in which the effects of abrupt antipsychotic discontinuation were investigated, using neuropsychiatric inventory (NPI) scores before and one month after discontinuation. Withdrawal symptoms were monitored three times a day with a checklist during five consecutive days.

Results

Participants (n=40) had a mean age of 84 years (range 67-95) and were in 53% male. The total mean baseline NPI score was 21 (SD 12) with predominantly behavioural rather than psychological disturbances. After abrupt discontinuation, mild withdrawal symptoms were observed in 72% of the patients, with frequencies of symptoms peaking on day 2 (53%) and day 3 (48%). After one month, 31 patients (85%) were still off antipsychotics and improved on the majority of NPI domains, with a total mean NPI score decreasing from 18 (SD 13) to 12 (SD 8, $p=0.003$). In the relapse group, there was no deterioration associated with the abrupt discontinuation and subsequent resumption of therapy with a total mean NPI score decreasing from 31 (SD 12) at baseline to 27 (SD 8) at one month follow-up ($p=0.345$).

Conclusion

Abrupt antipsychotic discontinuation appears to be feasible. Systematically performed discontinuation efforts in clinical practice are needed to differentiate between patients where antipsychotics have no added value and patients where the benefits outweigh the risks.

Introduction

The appropriateness of antipsychotic therapy for behavioural and psychological symptoms of dementia (BPSD) in older persons has been debated extensively and is a controversial topic. In fact, BPSD will affect about 50-80% of people with dementia, in varying degrees during their course of illness¹. Evidence suggests modest, limited efficacy for some specific symptoms within the BPSD spectrum², but the potential of benefit is overshadowed by potential harm. In the UK Banerjee³ (2009) concluded that there is minimal evidence for improvement in global behavioural disturbance by using antipsychotics (effect size 0.1-0.2), but a significant increase of absolute mortality risk. Kleijer et al.⁴ (2009) reported that only 18% of patients with dementia starting with antipsychotics improved on their behaviour, while 49% deteriorated. Stroke, falls and consecutive fractures, cognitive decline as well as deep vein thrombosis^{3,5} have been reported as adverse effects of antipsychotics in older persons, and even in short-term trials⁶. While trials had a time span of less than 12 weeks, antipsychotics are far more longer used in clinical practice⁷. Therefore, serious concerns with regard to the long-term effects exist. For all these reasons, guidelines^{8,9} advise to minimise antipsychotic use in older persons with dementia; to initiate antipsychotics only in severe distress after a risk-benefit analysis, and to limit treatment duration with attempts of discontinuation. Few studies investigated antipsychotic discontinuation¹⁰⁻¹⁵ and often with methodological limitations. Moreover, the studies have not explored the possibility of discontinuation in a hospital setting, and the immediate effects of abrupt cessation with attention to withdrawal phenomena. Mostly, they have focused on nursing home residents with Alzheimer's dementia; including only participants with mild symptoms; assessing different outcome measures on different times; including limited antipsychotic classes or not differentiating between antipsychotic or benzodiazepine withdrawal; and mostly implementing gradual discontinuation by tapering the dose.

Our pilot study was an observational uncontrolled cohort study aiming to explore the feasibility of abrupt antipsychotic discontinuation in hospitalised, cognitively impaired geriatric patients, and the effects with regard to withdrawal phenomena, re-occurrence of neuropsychiatric symptoms, and relapse to antipsychotics over time.

Methods

Institutions and patients

We conducted an observational study with hospitalised geriatric patients in a convenience sample of hospitals. The feasibility of abrupt antipsychotic discontinuation was explored in long-term users, who should be considered for discontinuation in accordance with best care practice. Patients were found eligible for study participation if:

- they had a confirmed clinical diagnosis of dementia or cognitive impairment assessed by the Mini Mental State Examination ($MMSE \leq 25$);
- they used antipsychotics explicitly for behavioural and psychological symptoms;
- the antipsychotic use was initiated before hospitalisation (at home or in the nursing home) or (in case of a long length of hospital stay) antipsychotics were used for at least one month during hospitalisation; and treating physician and researchers agreed on behavioural stability of the patient.

For patients on high dose antipsychotics, an old age psychiatrist was consulted regarding the risk of severe withdrawal symptoms associated with the abrupt discontinuation. Patients using antipsychotics for neuropsychiatric conditions with the exception of dementia were excluded, as well as delirium, and terminally ill patients.

Procedure

Prior to the study, the medical and nursing staff of the participating geriatric wards was informed with regard to the study. Information was given about the rationale for conducting this study, explaining that undertaking antipsychotic discontinuation efforts should be embedded in usual care practice. Physicians and nurses were asked to contact the principle investigator when patients on antipsychotics were admitted to the hospital. Further screening of the patients was done by the researcher, based on medical records, contact with GP and family members.

Informed consent was collected from the participants, and/or their proxy. When the patient was found eligible, the treating physician was asked to give the order to cease the antipsychotic treatment.

A baseline neuropsychiatric inventory (NPI) was assessed by interviewing a responsible nurse, general practitioner (GP) or family member having close contact with the patient in the last four weeks before abrupt antipsychotic discontinuation was started.

Study participants were meticulously observed by the physician and the nursing staff during 5 consecutive days after the abrupt discontinuation. The observers used a checklist (see further) deliberately designed for this study (based on literature) to detect possible withdrawal symptoms. This checklist was filled out three times a day by the early, late, and night nursing shift.

One month after the date of discontinuation, the NPI was re-assessed by interviewing the responsible nurse or treating physician. When the patient was discharged from the hospital, the follow-up was performed by telephone interview of the main caregiver, head nurse (nursing home) or GP.

Data collection

We collected administrative data (e.g. reason of hospital admission, length of hospital stay) and clinical data of all study participants. Administrative data also included Activities of Daily Living (ADL)¹⁶ which ranks the six functions of bathing, dressing, toileting, transferring, continence, and feeding.

Clinical data included type of dementia, MMSE and clinical problems (retrieved from the medical records).

The main outcome measure for this study was the NPI which covers twelve domains of behavioural and neurovegetative symptoms: delusions or paranoia, visual and auditory hallucinations, agitation or aggression, depressed mood or dysphoria, anxiety, elation or euphoria, apathy or indifference, disinhibition (impulsive), irritability or lability (decreased coping), motor disturbance (pacing, compulsive behaviours), night-time behaviour problems (e.g. sleep disturbance), appetite or eating problems (e.g. weight loss).

The antipsychotic withdrawal checklist was developed based on the literature^{17,18} and included four psychological symptoms (anxiety, restlessness, insomnia, hallucinations), and ten physical symptoms.

Malignant neuroleptic syndrome is a serious but rare event described when antipsychotic doses are augmented but also when antipsychotics are withdrawn¹⁹. This event was also included on the list and highlighted as a dangerous adverse event. The checklist also allowed for nurses' observations of other symptoms during the consecutive five days follow-up.

Data handling

The six domains of ADL were summed into a physical dependency score. The higher the score, the more physically dependent (total score ranging from minimum 6 to maximum 24). The NPI which covers twelve neuropsychiatric domains, differentiates in frequency (absent, or a range from 1-4) and severity of symptoms (range 1-3). We calculated each item by multiplying frequency and severity. The higher the score, the more severe the neuropsychiatric item (ranging from minimum 1 to maximum 12 per item). We also calculated a total NPI score that ranged from minimum 12 to a theoretical maximum of 144. The items of the withdrawal checklist (psychological and physical) were calculated into a total score, indicating the frequency of withdrawal symptoms per shift and per day.

Statistical analysis

The data was analysed using the Statistical Package for Social Sciences 19.0 (SPSS, Inc., Chicago, IL, USA). Differences, comparison of means between groups, and associations were analyzed through cross-tabulation, variance analysis, and correlations. The level of significance was set at $p < .05$.

For data analysis, the study population was divided into two subgroups: a successfully discontinued group and a relapse group. Successful discontinuation was defined as still being antipsychotic-free, one month after the date of abrupt discontinuation.

We explored baseline differences among the two groups as well as mean changes in the 12 NPI domains before and one month after antipsychotic discontinuation. Also, we performed an analysis on NPI clusters to detect differences in larger defined areas being mood (i.e. euphoria, depression, apathy, appetite), restlessness (i.e. aberrant motor activity, night-time behaviour problems, anxiety and disinhibition), psychosis (i.e. delusions and hallucinations) and agitation (i.e. agitation/aggression, irritability).

The success or relapse over time (in days) was examined using Kaplan Meier survival analysis where an event was defined as the re-initiation of antipsychotics.

Ethical considerations

This study was approved by the Ethics Committee of the Ghent University Hospital (approval number 2010/662) and of Hospital Network Antwerp (ZNA) (approval number 3751). Abrupt discontinuation was approved by the treating physician in all cases. A written informed consent was provided by the patient, and/or by proxy.

Results

Description of the institutions

We included three institutions of which one university hospital, one general hospital and a specialised psychogeriatric clinic. This clinic is specialised in dementia diagnostics and offers treatment strategies for patients with varying degrees of cognitive impairment.

Study participants were recruited from the geriatric ward of the university hospital (30 beds) and the general hospital (48 beds) as well as from the specialised clinic (60 beds).

The admission profile varies between the institutions with acute admissions and short hospital stay in the university hospital, while in the general hospital there is a mix of acute admissions and longer hospitalisations pending institutionalisation. The specialised clinic partially acts as a transition place pending institutionalisation, resulting in a longer hospital stay.

Description of the population

We enrolled 40 patients in the study (March-November 2011). Study participants had a mean age of 84 years (range 67-95) and were in 53% male.

Figure 1. Flowchart of the study

Patients had high physical dependency scores with a mean ADL of 16 (range 6-24) and had severe cognitive impairment (mean MMSE 16, range 4-25). In 34 patients, there was a clinically confirmed diagnosis of dementia. In the remaining six patients, there was no established diagnosis of dementia, but cognitive impairment existed (based on the MMSE) with behavioural disturbances for which antipsychotics were prescribed.

Table 1. Description of the study population (n=40) and the antipsychotic use

General patient characteristics	
Age (mean, range)	84 (67-95)
Females (%)	48
Physical dependency score (mean, range)	17 (6-24)
Mini Mental State Examination (mean, range)	16 (4-25)
Clinical problems	
	n
Hypertension	20
Vascular disease	9
Heart failure	5
Atrial fibrillation	5
Myocardial infarct	1
Cerebrovascular stroke	14
Epilepsy	6
Parkinson's disease	6
Diabetes	6
Renal failure	5
Prostate disease	2
Reason of hospital admission	
	n
General deterioration ¹	17
Cognitive problem ²	12
Physical illness	8
Falls	3
Length of hospital stay³	
(days) (median, range)	20 (8-417)
Antipsychotic use	
	%
Atypicals	73
Risperidone	48
Quetiapine	13
Olanzapine	8
Clozapine	4
Typicals	27
Haloperidol	19
Others	8

¹ included physical deterioration, as well as condition of neglect and/or pending institutionalisation

² defined as acute and severe confusion and/or cognitive diagnostics

³ length of study follow-up was 30 days, but a long mean length of stay was mainly due to patients from the specialised neuropsychogeriatric clinic who we already long-term hospitalised before study-start

Study participants suffered in 55% from Alzheimer's dementia, in 15% vascular dementia, in 15% dementia associated with Parkinson's disease, and in 15% there was no medical diagnosis of dementia (cognitive impaired).

The main reason for admission was general deterioration (Table 1). A small variance was found between the institutions with a physical illness as the main reason for admission in the university hospital, and cognitive diagnostic work-up as the main reason for admission in the specialised psychogeriatric clinic. The length of hospital stay varied per institution with a median of 20 days in the university hospital, 18 days in the general hospital and 168 days in the memory clinic. Study participants had several underlying diseases, with cardiovascular problems in 83% of patients.

Description of antipsychotic use

All patients received antipsychotics at stable doses. In eight patients there was duplicate use. Atypical antipsychotics accounted for 73% of the total use. Median (range) daily doses of the main prescribed antipsychotics were: risperidone 1 mg (0.25-2), quetiapine 82 mg (50-100), olanzapine 5 mg (5-10), haloperidol 2 mg (1-5). In six patients a geriatric psychiatrist was consulted regarding the abrupt discontinuation because of higher doses than the recommended geriatric doses.

We asked responsible nurses to indicate the main problem for which the patient was using antipsychotics. They indicated antipsychotic use for restlessness and agitation in 63%, aggression in 11%, delusion and hallucinations in 11%, depression in 10% and anxiety in 5%.

Completion

All study participants completed at least the consecutive five days follow-up period after the abrupt discontinuation. The follow-up NPI scores after one month could only be obtained for 37 patients, since three patients had dropped out due to unrelated death (cancer and pneumonia) (n=2) or adverse event (i.e. fall 14 days after discontinuation) (n=1).

During the consecutive five days follow-up, two study participants relapsed to antipsychotic use due to recurring delusions, hallucinations and/or agitation/aggression.

At one month follow-up, four more participants had relapsed to antipsychotics of which two cases were restarted during hospitalisation, and two cases restarted after discharge at the nursing home. In three of these cases, patients suffered from delusions, hallucinations and/or agitation/aggression.

Survival analysis investigated the time to relapse and revealed that the success rate over time was 95% after 5 days, and 85% after 30 days (Figure 3). Mean calculated survival time was 25 days.

Baseline neuropsychiatric inventory

Baseline NPI scores indicated that the majority of problems were behavioural symptoms rather than psychological symptoms. Night-time behaviour problems in addition to agitation/aggression were the predominant disturbances. The study population had a mean total NPI score of 21 (SD 12) (Table 2).

When differentiating in baseline symptom NPI scores between the successfully discontinued and relapse group, we found higher baseline scores for the majority of NPI domains in the relapse group, but only statistically significant for the domain of night-time behaviour problems and for hallucinations. Also, when comparing the overall mean NPI between successful and relapse group, there was a significant higher score for the relapse group ($p=0.007$, Table 2).

Table 5.2 Neuropsychiatric inventory scores at baseline and at one month follow-up

Domains	NPI at baseline				NPI after 1 month					
	Total population (n=40)	Successful group ¹ (n=31)	Relapse group (n=6)	p ²	Successful group			Relapse group		
	Mean (SD)	Mean (SD)	Mean (SD)		Mean (SD)	Mean change	p ²	Mean (SD)	Mean change	p ²
Nighttime behaviour	4.5 (3.9)	3.7 (3.9)	7.7 (2.9)	0.028	3.1 (3.0)	-0.6	0.354	6.7 (4.3)	-1.0	0.357
Agitation/aggression	4.3 (3.6)	4.4 (3.7)	5.3 (3.4)	0.498	3.6 (2.7)	-0.8	0.165	6.2 (4.8)	0.9	0.165
Irritability/Lability	2.2 (4.1)	1.9 (3.7)	5.0 (5.9)	0.153	1.8 (2.8)	-0.1	0.959	3.5 (3.9)	-2.4	0.959
Delusions	1.1 (2.3)	0.7 (1.9)	3.2 (3.8)	0.042	0.2 (1.1)	-0.5	0.131	2.3 (2.7)	-0.9	0.180
Depression/Dysphoria	1.6 (3.05)	1.7 (3.2)	2.0 (3.1)	0.711	1.4 (2.5)	-0.3	0.552	2.0 (3.1)	0	
Hallucinations	1.8 (2.9)	1.1 (2.3)	4.3 (4.1)	0.019	0.2 (0.7)	-0.9	0.017	3.5 (3.9)	-0.8	0.285
Apathy	1.0 (2.6)	1.2 (2.8)	0	0.856	0.6 (1.2)	-0.6	0.366	0.7 (1.6)	0.7	1.110
Motor disturbance	1.2 (2.8)	0.7 (2.1)	1.0 (2.5)	0.781	0.6 (2.3)	-0.1	0.713	0.7 (1.6)	-0.3	0.655
Anxiety	1.1 (2.7)	1.1 (0.8)	1.5 (3.7)	0.976	0.7 (1.7)	-0.4	0.340	0.6 (1.7)	-0.9	0.317
Appetite	1.0 (2.6)	1.3 (2.8)	0	0.205	0.2 (0.7)	-1.1	0.049	0	0	
Disinhibition	0.2 (0.9)	0.3 (1.1)	0.2 (1.5)	0.433	0.5 (1.3)	0.2	0.125	1.0 (2.5)	0.8	0.317
Euphoria	0.2 (0.7)	0.2 (0.7)	0	0.528	0	-0.2	0.180	0	0	
Total	20.0 (12.3)	18.1 (12.6)	30.7 (7.3)	0.007	12.4 (7.9)	-5.7	0.003	27.2 (11.8)	-3.5	0.345
Cluster										
Restlessness*	6.9 (5.6)	5.8 (5.6)	10.2 (3.8)	0.056	4.8 (5.0)	-0.1	0.340	9.0 (5.8)	-1.2	0.713
Agitation**	6.5 (6.7)	6.3 (6.5)	10.3 (8.2)	0.196	5.2 (4.7)	-1.0	0.156	9.7 (8.4)	-0.7	0.276
Mood***	3.7 (5.2)	4.3 (5.5)	2.7 (4.3)	0.529	1.9 (2.7)	-2.3	0.015	2.7 (4.3)	0	
Psychosis ^o	2.9 (4.9)	1.7 (3.9)	7.5 (7.4)	0.021	0.4 (1.3)	-1.4	0.011	5.8 (6.7)	-1.7	0.102

¹ discontinuation was considered successful in patients who stayed off antipsychotics after one month

² Mann Whitney U; p-value of the difference when comparing baseline mean NPI scores between the successful and relapse group

³ Wilcoxon signed ranks test; p-value of the difference when comparing means between baseline and 1 month follow-up of the successful group and of the relapse group

*cluster including aberrant motor activity, nighttime behaviour, anxiety and disinhibition

**cluster including agitation/aggression, irritability

***cluster including euphoria, depression, apathy, appetite

^o cluster including delusions and hallucinations

Withdrawal symptoms

All study participants completed the consecutive five days follow-up with monitoring three times a day of withdrawal symptoms by using a checklist. Mild withdrawal symptoms were observed in 72% of patients, peaking on the day two (53%) and day three (48%) and more often occurring at night. Psychological symptoms were reported in 67% of patients while physical symptoms occurred in 15% (Table 3 and Figure 2).

Table 5.3 Percentage of patients with withdrawal symptoms during the consecutive five days follow-up

	Day 1	Day 2	Day 3	Day 4	Day 5	Total
<i>Psychological symptoms</i>						
Unrest/agitation	35%	45%	40%	15%	15%	64%
Insomnia	20%	28%	25%	10%	8%	48%
Anxiety	3%	3%	3%	3%	0%	5%
Hallucinations	0%	8%	15%	5%	0%	25%
Total psychological symptoms	41%	50%	55%	21%	8%	67%
Total physical symptoms*	5%	5%	8%	3%	0%	15%
Total withdrawal symptoms	45%	53%	48%	23%	8%	72%

*nausea, emesis, diarrhea, vertigo, rhinorrhoea, increased appetite, anorexia, diaphoresis, dyskinesia, parageusia

Figure 5.2 Prevalence of withdrawal symptoms occurring during the day, evening or night

Figure 5.3 Survival analysis with antipsychotic relapse defined as the event over time (days)

Changes in NPI scores 1 month after antipsychotic discontinuation

Study participants with successful antipsychotic discontinuation after one month had significantly improved ($p=0.003$) on the total mean NPI score, decreasing from 18.1 (SD 12.6) to 12.4 (7.9). They had lower mean NPI scores on 11 out of 12 NPI domains, but most of these improvements were not statistically significant, except for the item hallucinations ($p=0.017$). A small decrease in total mean NPI of the relapse group while back on antipsychotics was from 30.7 (SD 7.3) to 27.2 (SD 11.8) ($p=0.345$). There was a non-significant trend to improvement on six out of twelve domains, especially for irritability, delusions, hallucinations and anxiety. In this group we found non-significant increasing domain scores for agitation/aggression, apathy and disinhibition.

In the successful group, there were benefits for the cluster mood as well as for the cluster psychosis with lower mean scores compared to baseline. In the relapse group, there was no deterioration associated with the abrupt discontinuation and subsequent resumption of therapy with possibly benefits for the cluster restlessness, agitation and psychosis. For the cluster mood there was no change (Table 2).

Discussion

To our knowledge, this study is the first to investigate the effects of abrupt antipsychotic discontinuation in cognitively impaired, geriatric inpatients with attention to withdrawal phenomena and neuropsychiatric symptom changes over time.

Mild withdrawal symptoms were common after abrupt discontinuation, but these symptoms weaned quickly over time, and led to relapse of antipsychotics in only a small minority of patients (n=2). At one month follow-up, 85% of participants were still off antipsychotics. We anticipated that patients discharged from the hospital to the nursing home would rapidly resume antipsychotic treatment, but this was not the case at one month follow-up.

Patients who relapsed to antipsychotics had more severe baseline symptoms, and needed resumption of therapy. Our study confirmed that high baseline antipsychotic doses and severe baseline behavioural scores are predictive for relapse and deteriorating behavioural effects after discontinuation^{10,14}. However, patients relapsing to antipsychotics showed no residual effects or deteriorating behaviour as a result of a period of discontinuation and subsequent resumption of therapy, still leading to a trend of some modest improved NPI domains. Patients who were successfully discontinued shared a clinically relevant and statistically significant improvement on the total mean NPI score and some of the subscores. Also other studies have confirmed our finding that the course of behavioural symptoms improves or remains stable after antipsychotic discontinuation^{4,10}. Our study findings suggest that behavioural disturbances in dementia are fluctuating and cognitively impaired older persons often do not benefit from long-term antipsychotic treatment. Systematically performed discontinuation efforts in clinical practice are needed to differentiate between patients where antipsychotics have no added value and patients where the benefits outweigh the risks. Gradual tapering is often recommended because of potential withdrawal symptoms, and is the result from studies with schizophrenic patients^{17,20,21} using higher doses of antipsychotics than older persons for the indication of BPSD. Furthermore, there is little information about the effects of gradual versus abrupt antipsychotic discontinuation in older persons with dementia, and the relationship with dosages, nor a standardised discontinuation schedule. We found that abrupt discontinuation of antipsychotics is feasible in older persons who are mostly using antipsychotics chronically in lower doses for their BPSD.

However, monitoring of withdrawal symptoms is always necessary and caution is still required in patients using high antipsychotic doses.

Limitations

We performed an observational uncontrolled pilot study in which we assessed the feasibility and the effects of abrupt antipsychotic discontinuation, as a part of usual care in a real-world setting. Despite the inclusion of three institutions, we still had a small sample, mainly due to some resistance at the start of the study with consequences on the ease of recruitment. The inherent limitation of a pilot study is often the small sample, and the consecutive lack of sufficient power to make strong statements based on the results. Also, subgroup analyses (e.g. type of dementia) were not possible due to our small sample. Nevertheless, in our opinion, a pilot study exploring abrupt antipsychotic discontinuation was necessary before performing a large intervention study.

A potential selection bias cannot be excluded for potentially eligible patients in whom treating physicians did not perform discontinuation. Our study included cognitively impaired long-term users in which antipsychotic discontinuation should be considered according to best practice in a 'real world' setting, excluding patients with psychiatric co-morbidities and acute behavioural problems in which continuation of antipsychotic treatment may be justified. Therefore, our study is however not representative in these patients.

As the study progressed, perceptions and attitudes positively changed when clinical improvements were seen in patients. The clinical improvement mainly included the clearing up of the antipsychotic induced drowsiness and sedation. Unfortunately, we could not further explore the process of clearing up mainly because of the lack of a standardised assessment tool to measure these rather 'clinical' effects in cognitively impaired older persons. It is possible that part of the high success rate and NPI improvement in successfully discontinued patients could be the consequence of a higher tolerability of behavioural problems, more knowledge, and altered perceptions, induced by the study.

We performed a pilot study to detect whether abrupt discontinuation would be feasible, and deliberately have chosen a hospital setting in order to detect adverse effects associated with the abrupt discontinuation in due time. The detection of withdrawal symptoms was recorded by nurses and by the researchers based on a specifically developed but not validated checklist. There are few studies on antipsychotic withdrawal symptoms^{17,18} and there is no validated tool to observe them, in contrast to the field of benzodiazepine withdrawal²².

We recorded a high prevalence of mild withdrawal symptoms mainly because our checklist was very sensitive and symptoms were recorded three times a day (day, evening and night). However, the symptoms weaned quickly over time suggesting that the symptoms were in fact withdrawal symptoms associated with the abrupt discontinuation.

Three patients dropped out, of which two participants died due to unrelated physical illness. Drop out due to death in older patients was expected since our population consists of frail older persons being hospitalised. One participant had an adverse event (fall) two weeks after the discontinuation, which was retrospectively reported to the researchers.

The relation between this adverse event and the antipsychotic discontinuation is unclear, knowing that older people have an increased risk of falling with several underlying factors, and that falls are frequent, also among non-antipsychotic users.

Implications for research

The results of this pilot study with regard to abrupt discontinuation suggest that abrupt discontinuation is feasible, and that larger confirmatory intervention studies controlling for type of dementia and potentially confounding factors in a hospital or nursing home setting with long-term follow-up, are needed. Antipsychotic discontinuation in a hospital setting should be further explored as an alternative to discontinuation programs in the nursing home, unburdening nursing home staff from the decision making and monitoring after the discontinuation. Discontinuation programs within hospitals or nursing homes should start with educational sessions for nurses and doctors to guarantee participation and involvement.

Implications for practice

Abrupt antipsychotic discontinuation in older individuals with BPSD appears to be feasible with a high success rate after one month. Discontinuation efforts are needed to identify patients in whom continuing antipsychotics have no added value, and patients in whom continuing treatment may be justified. Credible efforts should be undertaken to convince doctors and nursing staff in hospitals and nursing homes of the importance of antipsychotic discontinuation.

5.1 CONCLUSION

Abrupt antipsychotic discontinuation appears to be feasible. Systematically performed discontinuation efforts in clinical practice are needed to differentiate between patients where antipsychotics have no added value and patients where the benefits outweigh the risks.

Acknowledgements

The authors acknowledge the co-operation of the patients and their families. Also, we acknowledge the assistance of the doctors and nurses of all the institutions, in particular Dr. E. Maréchal, Dr. E. Steen, Dr. R. Wittoek, Mrs. E. Carrijn, Mrs. S. Vandenberghe, Mrs. N. Somers, Mrs. M. Vermeulen, Mr. P. Van Landuyt and Mr. K. Goossens. This research is supported by the Ghent University Hospital, Heymans Institute of Pharmacology, Belgium. Participation of the specialised psychogeriatric clinic (geheugenkliniek) is supported by the Special Research Fund of the University of Antwerp; Stichting Alzheimer Onderzoek; the Institute Born-Bunge; the agreement between the Institute Born-Bunge and the University of Antwerp; the Fund for Scientific Research - Flanders (FWO-F); the Interuniversity Attraction Poles (IAP) program P6/43 of the Belgian Federal Science Policy Office, the Methusalem excellence grant of the Flemish Government, Belgium.

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