



CLINICAL SCHOLARSHIP

SelfMED: Self-Administration of Medication in Hospital: A Prevalence Study in Flanders, Belgium

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Key words

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Abstract

Background: Self-management is a key element in regaining and maintaining health. However, during hospitalization it becomes less obvious. Patient self-administration of medication during hospitalization is suggested to be beneficial to patient satisfaction, adherence to pharmacotherapy, and self-care competence.

Objectives: This study aimed to examine the prevalence of self-administration of medication during hospitalization, and possible contributing factors.

Design and Setting: A cross-sectional observational study was conducted in 12 Belgian hospitals from February 2015 until June 2015.

Participants: Data were collected on all hospitalized patients at 57 wards, based in 12 hospitals.

Data Collection: A structured questionnaire at ward level and patient level on medication management, self-administration of medication, and rationale for prohibiting or allowing patients to self-administer their medication was conducted in consultation with the head nurse.

Results: Of the 1,269 patients participating in this study, 22% self-administered at least one medicine during hospitalization and 13.8% self-administered at least 50% of their total amount of medication. In the opinion of the head nurse, 40.9% of the hospitalized patients would have been able to self-administer their medication during hospitalization. Only a few wards had an available procedure and screening tool to assess the competence of the patients to self-administer their medication. This did not affect the prevalence of self-administration. Self-administration occurred significantly more at surgical short-stay wards, compared to other wards. The self-administering patients were on average younger and female and had a lower number of different medications per day before and during hospitalization. These patients had a good health status and were independent to mildly dependent on nurses on the ward. Related factors were used to provide a multivariate logistic regression model.

Conclusions: Sometimes self-administration of medication was allowed. According to the surveyed nurses, however, more patients would be able to self-administer their medication during hospitalization. There seems to be a lack of

procedures and screening tools to assess the competence or appropriateness of patients to self-administer their medication.

Clinical Relevance: This study provides new knowledge about the prevalence of self-administration of medication, contributing factors, the types of self-administered medications, and the organization of self-administration of medication on different wards.

In 1948, the World Health Organization (WHO; 1948, p. 100) defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Increasing criticism of the term “complete” in relation to well-being, and the complex measurement of “complete” health, have resulted in a new definition of health: “the ability to adapt and self-manage in the face of social, physical, and emotional changes” (Huber, 2011). As self-management is a key element in maintaining and regaining health, healthcare professionals need to support self-management.

In nursing literature, self-management of a chronic disease refers to the behaviors that persons use to manage the disease and its associated effects (Lorig & Holman, 2003; Trappenburg et al., 2013). Medication use is one of these behaviors used to manage the disease and its associated effects (Miller, Lasiter, Bartlett Ellis, & Buelow, 2015).

To support self-management of medication, healthcare professionals have the responsibility to evaluate to what extent a patient needs assistance, to detect self-management problems, to provide the care the patient needs, and to try to improve self-management abilities. Healthcare professionals should not take over actions without considering the patient’s self-management abilities (Meleis, 2012; Orem, 2001).

However, during hospitalization, self-management of medication is not obvious. Recently, a guideline by Peninsula Community Health stated “Self-Administration of Medication (SAM) is the process where a patient, following assessment is able to administer their own medicines whilst in hospital” (Peninsula Community Health, 2014, p. 4).

Inconclusive study results indicate that self-administration of medication during hospitalization has advantages compared to administration of medication by nurses, for example, increased patient satisfaction and an improvement of adherence to pharmacotherapy and self-care competence. Additional quantitative data are needed (Barnason, Zimmerman, Hertzog, & Schulz, 2010; Richardson, Brooks, Bramley, & Coleman, 2014; Tran, Elliott, Taylor, & Woodward, 2011; Wright, Emerson, Stephens, & Lennan, 2006).

So far, prevalence rates of self-administration of medication during hospitalization are scarce. A Belgian

pilot study conducted at a medical and a surgical ward showed that 32.1% of the included patients ($n = 81$) self-administered at least one medicine during hospitalization. The majority of these were oral medications (58%) or inhalation therapy (39%) (Vanwesemael, Hellemans, & Dilles, 2014a, b). A recent study on the medication systems and processes used within the U.K. National Health Service (NHS) described a presence of self-administration of medication policy in 93% of the hospitals ($n = 100$) (McLeod, Ahmed, Barber, & Franklin, 2014).

Considering the potential benefits of self-administration of medication, the aim of this study was to describe the prevalence of self-administration of medication during hospitalization in Flanders, Belgium, and the relationship with patient-related and organizational factors.

Methods

Design

A cross-sectional observational study was conducted in 12 hospitals in Flanders, Belgium, from February 2015 until June 2015. For each included patient, a questionnaire was completed in an interview with the head nurse. Data were registered on the prevalence of self-administration and demographic characteristics of each patient, and organizational characteristics of the included wards.

Participants

A convenience sample of three university hospitals, seven general hospitals, and two psychiatric hospitals participated in the study. The following wards were excluded: pediatrics, emergency departments, operating theatres, intensive care units, and day hospitals. A total of 65 wards were contacted. Eight refused participation because of time constraints, resulting in a sample of 57 wards. All patients of the participating wards were included.

Data Collection

For each included patient, a self-administration of medication questionnaire was completed in an interview

with the head nurse. Furthermore, the head nurse completed a questionnaire to describe ward characteristics and self-management policies. Interviewing the head nurse (or representative) to provide data on all patients was chosen in order to be able to include all patients, independent of physical or mental status, and for practical reasons. Nurses consulted the patients' files and, if needed, other healthcare professionals to complete the questionnaires.

At the level of the ward, data were collected on the type of ward, number of (occupied) beds, procedures for self-administration of medication, intake of home medication, and the storage of medication in the patient's room.

At the level of the patient, patient and self-administration of medication characteristics were collected using a questionnaire per patient. Questions concerning patient characteristics included gender, age, source of admission, discharge destination, care dependency, and health status. Both care dependency and health status had to be indicated on a 4-point Likert scale. Data collected on medication characteristics concerned the number of medications taken at home, the number of medications taken during hospitalization, and the number and type of changes in the medication schedule used at home compared to the medication used during hospitalization. In the last part of the questionnaire, we questioned whether self-administration of medication was considered, who was involved in this decision-making process, and whether the nurse thought that the patient would have been able to self-administer medication during hospitalization. Also, the current medication management of the patient (self-administration or administration of medication by nurses) was questioned. If the patient did self-administer medication, the name and route of administration of self-administered medication were registered. Afterwards, they were coded using the Anatomical-Therapeutic-Chemical classification on the fourth level (WHO, 2014). Finally, the reasons why patients were considered able or not able to self-administer were questioned.

Instrument Development

The questionnaires were developed through literature review, pilot testing, and expert validation. Firstly, questionnaire items were developed based on a review of literature on self-administration of medication and influencing factors. Afterwards, the instrument was pilot tested for comprehensibility and item selection in a small-scale study on the prevalence of self-administration of medication in a regional hospital ($n = 81$) (Vanwesemael et al., 2014a, 2014b). As a result of

this pilot test, five questions on demographic characteristics of the patient, two questions concerning medication characteristics, and three questions on self-administered medications were added. Afterwards, the adapted questionnaires were presented to a panel of practicing nurses, physicians, and a hospital pharmacist. This resulted in minor alterations in some answer categories.

Data Analysis

The Statistical Package for Social Sciences (SPSS) version 23.0 (SPSS Inc, Chicago, IL, USA) was used to analyze the data. Kolmogorov-Smirnov and Shapiro-Wilk tests showed non-normality of the distributions of age, number of different medications taken at home, number of different medications taken during hospitalization, and number of self-administered medications during hospitalization. Nonparametric statistics were used to analyze these data. Discontinuous data were described using frequency distributions. Continuous data were described using a mean value and standard deviation if normally distributed, or using a median and range if non-normally distributed. The differences between patients with or without self-administration of medication were calculated using nonparametric statistics (Mann-Whitney test for continuous variables and chi-square test for discontinuous variables). To explore the relationship between patient-related characteristics and self-administration of medication, stepwise multiple logistic regression was applied. Because we wanted to distinguish between patients who were allowed to self-administer a substantial part of their medication and those who were not allowed to (or only occasionally a limited number), we decided to use a cut-off of 50% self-administered medications in the multivariate analysis. Patients had to self-administer at least 50% of their medications in order to be included in the self-administering group of the logistic regression analysis. A p value of ≤ 0.05 was considered as statistically significant.

Ethical Considerations

Before the start of the study, approval was obtained from an ethics committee (reference B670201523494). For each participating ward, informed consent was provided to the head nurse. Patient data were collected by interviewing nurses. There was no direct patient contact and all collected data were coded (no identification data of patients). Patients received an information letter about the study and could refuse participation.

Table 1. Ward Characteristics ($n = 56$)

Type of ward	
Surgical ward	32.1
Medical ward	19.6
Rehabilitation ward	10.7
Geriatric ward	10.7
Psychiatric ward	8.9
Surgical short stay	7.1
Maternity	1.8
Other	8.6
Number of beds (mean \pm SD)	29 \pm 6.1
Number of occupied beds (mean \pm SD)	24 \pm 7.5

Results

Population

Of the 57 participating wards, 23 were based in a university hospital, 29 in a general hospital, and 5 in a psychiatric hospital. One questionnaire at the level of the ward was not completed and was therefore excluded from analysis. Most of the wards were medical, surgical, rehabilitation, or geriatric wards. As shown in **Table 1**, the wards had a mean of 29 available and 24 occupied beds.

At inclusion, 1,269 patients were hospitalized at the participating wards; none refused participation. The mean age was 64 years, and 51.2% were female. The majority of the patients were living at home before hospitalization (76.1%), and after discharge the majority (69.1%) returned back home. The largest group was functionally independent or mildly dependent (63.9%), with a good or rather good health status (64.2%; **Table 2**).

Additional analysis (**Table S1**, available with the online version of this article) showed differences based on gender. Men were on average younger (men: 63 years; women: 66 years; $p = .002$), were less likely to go home (men: 66.8%; women: 71.3%; $p < .001$), had higher care dependency levels (men: 22.0%; women: 15.0%; $p = .013$), and had a lower general health status (rather bad health status of men: 32.0%; women: 24.7%; bad health status of men: 9.6%; women: 5.6%; $p < .001$).

Hospitalized patients took on average six different medications at home and nine within the hospital. In 75.0% of the hospitalized patients, the transition from home to the hospital resulted in one or more changes in the medication schedule. The most frequent change was a new prescription in 84.5% of the patients, followed by an alteration in the brand name in 75.0% of the patients. Additional analysis of these results showed differences between the average amount of six medications taken by men and seven by women ($p = .002$). Furthermore,

Table 2. Participant Characteristics ($n = 1,269$)

	%
Male	48.8
Age (years; mean \pm SD)	64 \pm 18.7
Source of admission	
Home	76.1
Other hospital	8.8
Internal transfer	8.8
Nursing home	3.6
Rehabilitation	0.9
Unknown	0.2
Other	1.7
Discharge destination	
Home	69.1
Unknown	10.5
Nursing home	9.6
Rehabilitation	4.4
Other	4.2
Other hospital	2.2
Care dependency	
Independent	25.3
Mildly dependent	38.6
Dependent	17.7
Completely dependent	18.4
Overall health status	
Good	21.6
Rather good	42.6
Rather bad	28.2
Bad	7.5

a correlation between the age and the amount of medications taken before hospitalization and during hospitalization, respectively $r = 0.276$ and $r = 0.232$, was found ($p < .001$).

Tables 3 and **4** show details on the medication management characteristics at both ward and patient level. Out of 56 wards, 10 wards (17.9%) had a procedure for self-administration of medication during hospitalization; only four wards (7.1%) had a screening tool to assess patients' competence to self-administer their medication during hospitalization. On 37 wards (74%), some patients used medication brought from home during hospitalization. In half of the included wards (55.4%), less than 20% of their patients stored their medication in their own room. These medications were most frequently stored in the patients' cabinet (64.3%), inside the regular medication package (62.5%), and inside a medication tray belonging to the patient (44.6%).

Prevalence of Self-Administration of Medication

Self-administration of medication was considered in 25.0% of the hospitalized patients ($n = 300$). The

Table 3. Medication Management Characteristics at Level of the Ward ($n = 56$)

	%
Presence of SAM procedure	17.9
Presence of screening tool for SAM	7.1
Use of home medication during hospitalization	74.0
Storage of medication in the patient's room	
No storage	8.9
<20% of the patients	55.4
20%–50% of the patients	16.1
51%–80% of the patients	10.7
>81% of the patients	8.9
Way of storing medication in the patient room ^a	
Closet of the patient in the patient's room	64.3
Medication package	62.5
Medication tray	44.6
Safe of the patient in the patient's room	7.1

Note: SAM = self-administration of medication.

^aMultiple answers were allowed.

Table 4. Medication Management Characteristics at Level of the Patient ($n = 1,091$)

	%
Number of medications taken before hospitalization (mean \pm SD)	6 ± 4.6
Number of medications taken during hospitalization (mean \pm SD)	9 ± 5.2
Changes in medications caused by hospitalization ^a	75.0

^aMultiple answers were allowed.

decision-making process of allowing self-administration of medication was a generally shared endeavor. In 28.3% of cases the decision-making process was shared between the treating physician, the nurse, and the patient; in 26.3% of cases between the nurse and the patient; in 14% of cases between the treating physician and the patient; in 9% of cases between the nurse, treating physician, patient, and the patient's family; and in 6% of cases between the treating physician and the nurse. Hospital pharmacists were only involved in 0.1% out of 300 decisions. The general practitioners, providing the general medical treatment for the patient at home, were not involved.

Of 1,269 patients, 278 (22%) self-administered at least one medicine during hospitalization, with a maximum of 16 different self-administered medications and an average of 4 medications. On average patients took 13.1% of their total amount of medications in self-administration (ratio self-administered medications/number of medications taken during hospitalization). Moreover, 13.8% of the patients self-administered at least 50% of the total amount of prescribed medication, and 5.8% of

these patients self-administered 100% of the total amount of prescribed medication. The majority of self-administered medications were oral medications (83.5%) and inhalation therapy (7.7%). The most frequently self-administered medications were grouped by the nervous system (23.3%), the cardiovascular system (21.7%), and the alimentary tract and metabolism (16.8%).

The head nurses were asked to judge the ability of every patient to self-administer medication. They estimated that 40.9% of the patients would be able to fully self-administer (prepare and take medication independently during hospitalization) their medication, 20.8% would be able to only self-administer their medication if their medications were prepared by the nurses at the ward, and 38.3% would still be fully dependent on the nursing staff for their medication management during hospitalization.

Reasons for Prohibiting or Allowing Self-Administration of Medication

Nurses indicated multiple reasons for prohibiting or allowing self-administration of medication for each patient. Reasons for prohibiting self-administration of medication were: procedures not allowing self-administration (56.3%), the health status of the patient (31.4%), and the caregiver's opinion on self-administration of medication (24.2%). Factors for allowing patients to self-administer their medication were: the patients' mental status (84.8%), the patients' motor skills (82.2%), the patients' ability to express themselves (82.2%), the patient was already self-administering medication at home (82.2%), and the patients' ability to ask for advice concerning their medication (80.8%; **Table S2**, available with the online version of this article).

Self-administration of medication was not considered in 78.1% of those patients who did not self-administer medication ($n = 967$).

Organizational Characteristics and Patient-Related Characteristics Associated With Self-Administration of Medication

In order to evaluate whether organizational characteristics influenced the prevalence of self-administration, the percentage of self-administering patients on different types of wards and wards with and without a procedure were compared. This comparison showed a difference between surgical short-stay wards (81.2%), psychiatric wards (32.1%), surgical wards (22.1%), medical wards (16.9%), rehabilitation wards (9.7%), and geriatric wards (5.6%; $p = .037$). The presence of a procedure for self-administration of medication did not influence the percentage of patients self-administering medication.

Table 5. Influence of Patient- or Medication-Related Characteristics on Self-Administration of Medication: Logistic Regression Analysis

Characteristics related to self-administration of medication	% ^c	<i>p</i>	Univariate (<i>n</i> = 1.269) RR [CI 95%]	Multivariate ^b (<i>n</i> = 1.250) RR [CI 95%]		
Gender						
Female	16.7	.003	1.65 [1.19–2.30]	1.55 [1.03–2.31]		
Male	10.8		ref	ref		
Care dependency						
Independent to mildly dependent	20.3	<.001	10.19 [5.46–19.00]	3.42 [1.71–6.84]		
(Completely) dependent	2.4		ref	ref		
Health status						
(Rather) good	20.3	<.001	10.14 [5.44–18.90]	3.70 [1.85–7.39]		
(Rather) bad	2.5		ref	ref		
Source of admission						
Home	16.0	<.001	2.43 [1.52–3.87]	/		
Other	7.3		ref			
Discharge destination						
Home	17.5	<.001	3.70 [2.30–5.93]	/		
Other	5.4		ref			
Changes in home medication schedule ^d						
Yes	10.9	<.001	0.40 [0.28–0.56]	0.49 [0.32–0.73]		
No	23.7		ref	ref		
		Mean ^e				
		Yes	No	<i>p</i>	RR [CI 95%]	RR [CI 95%]
Age (years)		52.7	66.4	<.001	0.96 [0.96–0.97]	0.97 [0.96–0.98]
Number of medications taken during hospitalization		6.5	9.9	<.001	0.85 [0.81–0.88]	0.83 [0.77–0.89]
Number of medications taken before hospitalization		5.5	6.6	.005	0.95 [0.91–0.99]	1.16 [1.08–1.25]

Note. CI = confidence interval; ref = reference; RR = relative risk; / = these variables were not included in the model.

^aSelf-administration of medication; this concerned patients self-administering $\geq 50\%$ of their medications.

^b R^2 (Nagelkerke) = 0.303; *p* value of the model <.001.

^cProportion of patients self-administering medication.

^dChanges in the home medication schedule of the patient caused by hospitalization.

^eMean value of self-administering or not self-administering patients.

To evaluate whether patient-related characteristics were associated with self-administration of medication, patients who self-administered at least 50% of their total amount of medications were considered as self-administering patients. As shown in **Table 5**, self-administration was related to gender, care dependency level, general health status, place of stay before admission and after discharge, and age. Patients who were self-administering their medication during hospitalization were more frequently female (16.7% women vs. 10.8% men, $p = .003$) and on average younger (self-administering patients: 52.7 years; non-self-administering patients: 66.4 years; $p < .001$). A lower level of care dependency and a better general health status corresponded with patients self-administering medication more often (respectively 20.3% and 20.3%, compared to 2.4% and 2.5%; $p < .001$). Patients living at home before hospitalization self-administered their medication more often (16.0%) compared to patients with other admission sources (7.3%; $p < 0.001$). Also, patients

returning home after hospitalization self-administered their medication more often (17.5%) compared to patients with other discharge destinations (5.4%; $p < .001$).

Besides patient characteristics, changes in medication use were related to self-administration of medication. Changes in the home medication schedule negatively influenced the prevalence of self-administration (23.7% if medication schedule was not changed compared to 10.9% if medication schedule was changed; $p < .001$). Patients self-administering medication took a lower amount of different medications during their hospitalization and before admission compared to the not self-administering group (respectively, 6.5 at the hospital and 5.5 at home compared to 9.9 at the hospital and 6.6 at home; $p < .001$ and $p = .005$).

The multivariate analysis of the above-mentioned variables (see **Table 5**) resulted in a model explaining 30.3% of the variance ($p < .001$). In this model, being a woman resulted in 55% more chance to self-administer (relative risk [RR] = 1.55; 95% confidence

interval [CI] [1.03–2.31]). Also, self-administration of medication was associated with lower care dependency levels, and a better general health status (respectively, RR = 3.42; 95% CI [1.71–6.84] and RR = 3.70; 95% CI [1.85–7.39]). If changes were made in the patients' home medication schedule, this resulted in a decrease of 51% to self-administration of medication during hospitalization (RR = 0.49; 95% CI [0.32–0.73]). For each year of age increased, the odds of self-administering medication decreased with 3.0% (RR = 0.97; 95% CI [0.96–0.98]). Each extra medicine taken during hospitalization resulted in 17.0% less self-administration of medication (RR = 0.83; 95% CI [0.77–0.89]). Compared to the medication taken at home, each extra medicine taken at home before hospitalization resulted in 16.0% increase of self-administration medications (RR = 1.16; 95% CI [1.08–1.25]).

Discussion

In Flemish hospitals, 22% of the patients self-administer at least one medicine. Nurses judged 40.9% of the hospitalized patients would be able to fully self-administer (prepare and take medication independently during hospitalization) their medication. These findings show that far more patients would have been able to self-administer their medication during hospitalization.

The study sample was representative for patients hospitalized in Flemish hospitals, as all patients of 57 participating wards were included. The sample was obtained by interviewing head nurses. Interviewing the head nurse (or representative) provided data on all patients, in order to be able to include all patients, independent of physical or mental status, and for practical reasons.

Self-administering patients were on average younger and female, and had a lower number of different medications per day before hospitalization and during their hospital stay. More often, they came from their own home environment and returned there after discharge. Self-administering patients had a better general health status and lower care dependency levels. Other research involving a population of patients who did not self-administer medication during hospitalization showed that patients under 60 years of age had a significantly greater desire to self-administer their medication in hospital, compared to patients over 60 years of age (Deeks & Byatt, 2000). Combined with the rationale to prohibit or allow self-administration of medication, these results described the type of patient who could possibly self-administer medication. These results should be used in further research on developing a screening tool to assess patients' competence to self-administer medication.

Although self-administration of medication was allowed and decisions concerning this topic were made, only 17.9% of the wards had a procedure for self-administration and only 7.1% of the wards had a screening tool to assess patients' competence to self-administer their medication during hospitalization. These data confirm the need for a uniform protocol and a uniform screening tool to assess patients' appropriateness to self-administer their medication. The differences in the progress of implementing self-administration in hospitals was also reported in an audit performed by the NHS, which provides health care for all U.K. citizens, in different NHS Trusts (London Audit Commission, 2001). A clear policy and protocols on self-administration are required in case of hospital accreditation. For example, the Joint Commission International (JCI) has set a standard on Medication Management and Use (MMU), or to be precise "Standard MMU.6.2 policies and procedures govern medications brought into the hospital for patient self-management or as samples." Moreover, JCI allows self-management if this is governed by policies and procedures (JCI, 2013).

A policy for self-administration of medication for inpatients is necessary. This policy should consist of a procedure on self-administration of medication during hospitalization; an assessment to decide whether patients are appropriate to self-administer medication; an observation tool to monitor medication adherence while self-administering medication; and support for both patients who need to self-administer medication and caregivers who support patients while self-administering (e.g., patient education). In an attempt to provide a facilitating context for self-administration of medication, a clear social and legal context should be provided, for example, responsibility in case of errors and delivery of medication. Legal concerns on self-administration of medication should be addressed in order to prevent the promotion of self-administration of medication to be problematic. A shared decision on allowing or prohibiting self-administration of medication has to be made. This decision has to be made in consultation between physicians, nurses, and patients, but also with the hospital pharmacist. Hence, the provision of medication remains the responsibility of the hospital pharmacists in active cooperation with the nurses who administer medication (Royal Decree, 1991). The involvement of hospital pharmacists during this study was practically nonexistent. Self-administration of medication requires an integrated multidisciplinary approach to ensure that patients maximize the benefits from their medication.

Another important factor in providing a facilitating context for self-administration concerns the approach

of possible barriers for implementation, for example, possibly adapting the current medication management system, considering what schedule of drugs can be allowed, how and where to safely store self-administered medication, etc. Because of the significant impact of self-administration of medication on health care, the term “self-administration” might not be wide enough. Therefore, we suggest the term “self-management of medication,” which includes a broader range of aspects: protocol, screening tool, observation tool, multidisciplinary approach, and social and legal context. Furthermore, self-management of medication demands not only that the patient administers medication, but demands more patient engagement.

Self-management of medication will affect the daily nursing practice. Rather than preparing and administering medication, nurses will be providing more person-centered care, thereby allowing more self-management of patients during hospitalization. The activity of preparing and administering medication will be partly replaced by the assessment of patients' competence or appropriateness concerning self-management of medication, supporting and providing education concerning medication, and evaluating the possibility of self-management of medication during the entire hospital stay.

Conclusions

During this study, 22% of the hospitalized patients self-administered at least one medicine during hospitalization. Although self-administration of medication was allowed, only 17.9% of the wards had a procedure for self-administration of medication during hospitalization and 7.1% of the wards had a screening tool to assess patients' competence to self-administer medication. Self-administering patients were on average younger and female, and had a lower number of different medications per day before and during hospitalization. These patients had a good health status, and were independent to mildly dependent on nurses on the ward.

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Clinical Resource

- Belgian Centre for Pharmacotherapeutic Information: <http://www.bcfi.be/>

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web site:

Table S1. Differences in Participant Characteristics Between Men and Women

Table S2. Reasons for Prohibiting or Allowing Self-Administration of Medication

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