

## Hospital discharge of patients with ongoing care needs: a cross-sectional study using data from a city hospital under SwissDRG

Koné Insa<sup>a</sup>, Zimmermann Bettina<sup>a</sup>, Wangmo Tenzin<sup>a</sup>, Richner Silvia<sup>b</sup>, Weber Markus<sup>c</sup>, Elger Bernice<sup>a</sup>

<sup>a</sup> Institute of Biomedical Ethics, University of Basel, Switzerland

<sup>b</sup> Department of Internal Medicine, Central City Hospital Triemli of Zurich, Switzerland

<sup>c</sup> Department of Surgery, Central City Hospital Triemli of Zurich, Switzerland

### Summary

**AIM OF THE STUDY:** Switzerland introduced the Swiss-DRG in 2012. The goal of this reimbursement system was to promote cost containment and efficiency in hospital care. To ensure that patients with care needs are not released prematurely because of constraints under the new hospital financing system, the Swiss law on Acute and Transitional Care (ATC) was introduced one year earlier. The objective of the present study was to investigate the impact of ATC and its effects on discharge of patients with persisting care needs after hospitalisation.

**METHODS:** Social service workers, nurses and palliative care team members at a Swiss municipal hospital were asked to complete a four-page closed-ended questionnaire about patients who require care after their hospital discharge. This included questions on discharge management, their perceptions of the appropriateness of discharge timing and details about conflicts regarding discharge. Information on length of stay, discharge location, age and sex was extracted from hospital records and matched to the information from the questionnaires. Demographic data are presented descriptively, differences between patients released to ATC and patients released elsewhere (home, nursing home, rehabilitation, etc.) were evaluated with chi-square tests. Logistic regression analyses were performed to evaluate differences between those sent to ATC and rehabilitation with age, length of stay and sex as predictors.

**: RESULTS:** A total 1410 of valid questionnaires were collected, comprised of 746 female patients (52.9%) and 664 male patients (47.1%). The mean age of our patient cohort was 73.2 years (SD 15.1), and the mean hospital stay was 12.8 days (SD 9.1). After their hospital stay, 553 patients (39.2%) returned home either alone, or with the help of family members or Spitex. More than a quarter of the sample, 387 (27.4%) patients, was sent to rehabilitation. Less than a fifth, 199 (14.1%) patients, received ATC in an inpatient institution (e.g., nursing home). Compared with patients released elsewhere, significantly more problems/conflicts with regard to hospital discharge were reported

for ATC patients (28.6 vs 20.6%,  $p = 0.01$ ) and their relatives (12.6 vs 7.2%,  $p = 0.01$ ). Women had a higher probability of being discharged to ATC (OR 1.522,  $p = 0.014$ ) and a lower chance of receiving rehabilitation upon discharge (OR 0.733,  $p = 0.014$ ).

**CONCLUSION:** The study identified important concerns related to receiving ATC after a hospital stay, that is, more problems/conflicts occur with patients discharged to ATC and that the introduction of ATC might particularly disadvantage female patients, who are less likely to receive rehabilitation care.

**Key words:** *diagnosis related group, acute transitional care, rehabilitation, hospital discharge, satisfaction*

### Introduction

To promote cost containment, efficacy and transparency in hospital financing, Switzerland introduced a reimbursement system based on diagnosis-related groups (DRGs) in 2012 [1]. With this new reimbursement system, hospitals are remunerated with a lump sum based on each DRG, irrespective of actual workload (e.g., hospital days, working hours) of the specific case. Therefore, hospitals have to optimise treatment processes in order to be cost neutral. Limited research on SwissDRG show that the average length of stay (LOS) of patients in hospitals has decreased since its implementation [2, 3]. Reduced LOS is one of the major concerns related to DRG, since it is feared that hospitals might have the incentive to discharge patients too early [4]. In the US it was found that under a prospective payment system, more patients were discharged in an unstable state with important clinical problems [5]; this might result in higher care needs and dependence of patients at the time of hospital discharge.

As a reaction to these concerns, the Swiss law on Acute and Transitional Care (ATC) was introduced in 2011 in order to reduce the negative impact of the introduction of DRG, especially for vulnerable patient groups [6]. The idea was to support patients who may not need medical services but may still require care for a transitional phase after hospitalisation. After ATC support, these patients

### Correspondence:

Insa Koné, Institute for Biomedical Ethics,  
 Bernoullistr. 28, 4056  
 Basel, Switzerland, In-  
 sa.kone[at]unibas.ch

should be in a condition generally comparable to that prior to hospitalisation and thus be able to return to their previous living situation. Patients are only eligible for ATC if they do not need longer inpatient care or rehabilitation services, and ATC can only be given directly after a hospital stay. ATC can be provided either by hospitals, nursing homes or as outpatient care by Spitex (the Swiss home care service). The duration should not exceed 2 weeks.

ATC was originally meant to be covered by cantons and healthcare insurance in the same way as inpatient hospital care. Unlike rehabilitation, patients do not need cost approval from their health insurance [7, 8]. However, the actual implementation of ATC into practice differs between cantons, and difficulties and inequalities have been described [9]. In the canton of Zurich, “hotel costs” for the patient in ATC are covered by neither the health insurance nor the canton. Therefore, the final out-of-pocket payment for the patient is significantly higher than their contribution for a hospital stay or a rehabilitation [4]. Therefore, inpatient ATC is financially not attractive for the patient [9].

Since inpatient rehabilitation requires cost approval from their health insurance, delays associated with cost approval or a lack of rehabilitation places in clinics can prolong the hospital stay for these patients [10]. Changing from ATC into rehabilitation is not envisaged by law, to prevent ATC from being a holding track for patients waiting for a place in rehabilitation or elsewhere [11]. From the hospital’s perspective, releasing patients into ATC might therefore be an easier and faster option. However, as geriatric rehabilitation can reduce admission to nursing homes and mortality [12], and rehabilitation in general was found to be beneficial for the patients [13], choosing ATC might not be the best medical or ethical choice [9].

The discharge decision in hospital is made collectively by physicians, healthcare personnel, social service workers, the patient and sometimes relatives. The use of ATC has to be prescribed by the hospital physician [7, 8]. As long as the patient is fully capable of making decisions, his or her own will is the most important factor. It remains, however, unclear to what extent specific options are given to patients and which criteria are taken into account by physicians and others involved to decide whether a patient should receive, for example, rehabilitation, ATC or other options. Hence, the objective of the present study was to investigate the impact of ATC and its potential to alleviate the introduction of DRG with regard to a vulnerable group of patients empirically. In this paper, by vulnerable, we mean patients who are in need of care after hospitalization. Concrete research questions were:

- Where are patients, who are in need of further care, released to after hospital treatment?
- Are patients and their relatives satisfied with the date of a discharge to ATC?
- Which factors are associated with a transfer to ATC?
- Do patients released into ATC differ from patients released into rehabilitation?

## Materials and methods

This research is part of an SNF project on ATC “Inpatient-outpatient transition in the era of DRGs: the legal framework and current practice”. The project includes a legal overview, and a qualitative as well as a quantitative com-

ponent. This paper presents the first part of the quantitative research, which was carried out at Zurich’s municipal hospital, Triemli. The hospital treats around 22 000 inpatients per year with an average stay of 5.7 days [14]. The hospital provides acute clinical care and does not itself have an ATC or rehabilitation unit. Thus, patients are transferred to other locations for ATC and rehabilitation services.

The cross-sectional study included information on hospital patients from April 2016 to December 2016 over the age of 18 years and with care needs after their hospital discharge. In order to achieve a broad picture of the discharge of patients with care needs, we did not provide specific criteria for patient inclusion with regard to care needs. Social service workers, nurses and the palliative care team were asked to identify these patients because they had the most comprehensive view on the patients and could evaluate if care needs persisted after hospital discharge. They completed a questionnaire for each patient after the patient had left the hospital. Only one questionnaire per patient stay was included into the analysis. In order to organise this procedure, we started by collecting questionnaires from social service workers and only patients not addressed by them were covered by either nurses or the palliative care team. This was because social service workers were those whom the medical personnel relied on most in these decisions. Social service workers were thus strongly involved in evaluations and in arranging for ATC and other care services needed by the patient. Therefore, we also favoured questionnaires from social service workers over questionnaires from palliative care and nurses (descending order), if more than one questionnaire was completed for a patient. If two questionnaires were completed by the same service, we included the one that was completed earlier to have information as close as possible to the discharge of the patient.

Since we received several questionnaires where it was clear that it should not have been completed for the particular patient, we defined exclusion criteria. Any patient with a hospital stay of less than three nights, age under 50 years, and discharged to his or her home without any help was excluded (see [fig. 1](#)). We did not gather data on the total number of inpatients who were treated at the same hospital for the time period when our data was collected. We can therefore only provide the total number of questionnaires and no information on response rate.

The short four-page closed-ended questionnaire completed by the social service workers, nurses, and palliative care team comprised information on discharge management, perception of the appropriateness of the discharge timing, and on conflicts with regard to the discharge (see [appendix 1](#), available as a separate file for down loading). From the hospital records we matched information on length of stay, the place where patients went, age and sex. The questionnaire was piloted with the hospital personnel and adapted where necessary.

Data was entered manually and analysed using IBM SPSS version 24.0. General sample data are presented descriptively. Differences between patients released to ATC and other patients (released home, nursing home, rehabilitation, etc.) are also presented descriptively to avoid multiple testing with rather small numbers. Only for three major questions was the chi-square test done to compare patients released to ATC with non-ATC patients (see [table 3](#)). Pa-

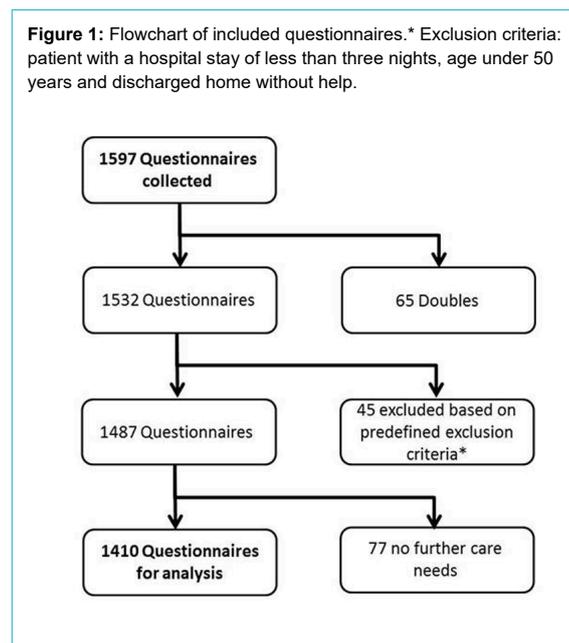
tients released to ATC were furthermore compared to patients released to rehabilitation because ATC might be an alternative for patients who did not receive cost approval for rehabilitation. For this purpose, we used logistic regression analysis. The dependent variable was exit to ATC or rehabilitation (see table 4). We tested for age, sex and length of stay as possible predictors. Tests were always two-tailed and the significance level was set at  $p < 0.05$ . As the study is of rather exploratory character, we did not correct for multiple testing. Missing data was not included into the analyses.

The project was approved by the cantonal ethics committee Zurich (Nr. 2015-0350).

## Results

Between April 2016 and December 2016 we collected 1597 questionnaires (fig. 1). After excluding duplicate responses for the same case and questionnaires outside the inclusion criteria, 1410 questionnaires formed the total used in the analysis. Of these questionnaires, 851 (60.4%) were provided by social service workers, 478 (33.9%) by nurses, and 81 (5.7%) by palliative care.

**Figure 1:** Flowchart of included questionnaires.\* Exclusion criteria: patient with a hospital stay of less than three nights, age under 50 years and discharged home without help.



## Demographic and ATC information

From the total 1410 valid questionnaires received, 746 represented female patients (52.9%) and 664 male patients (47.1%). The mean age of the included patients was 73.2 years (standard deviation [SD] 15.1) and the mean hospital stay 12.8 days (SD 9.1, range 1–114). After their hospital stay, 553 patients (39.2%) returned home either alone or with the help of family members or Spitex (table 1). More than a quarter of the sample, 387 (27.4%) patients were sent to rehabilitation. Less than a fifth, 199 (14.1%) received ATC in an inpatient institution (e.g., nursing home). Hundred and twenty-five (8.9%) patients went to retirement or nursing homes. Only 53 (3.8%) were transferred to a geriatric hospital, 26 (1.8%) went for a cure at a health resort, and 60 (4.3%) went elsewhere. For seven patients (0.5%), no data on placement after discharge was available.

Among the 199 patients receiving ATC, 135 were women (67.8%) and 64 were men (32.2%). The average age in this group was 83.4 years (SD 9.5) and the average hospital stay was 12.9 days (SD 6.5, range 4–64).

## Appropriateness of time of discharge

Social service workers, nurses and the palliative care team were asked for each patient, how the exit date was perceived by physicians, the patients and themselves, and whether patients and family agreed on the exit date (table 2). When answers for patients released to ATC were compared with answers for other patients, more patients released to ATC considered their exit date as too early (11.5 vs 5.5%). There was also a tendency for those patients to be less likely to agree with the exit date (72.8 vs 79.6%). With regard to the opinion of the family (“Did the family agree with the exit date?”) a positive answer was given more frequently for ATC (73.4 vs 55.5%), but a negative answer was given more frequently for patients released to ATC than for other patients (5.2 vs 2.8%). This means that fewer families in the ATC group seemed to be unsure about the appropriateness of the exit date (21.4 vs 41.7%).

## Conflicts with discharge

Table 3 shows for how many patients social service workers, nurses or palliative care team stated that there was a problem/conflict concerning hospital discharge. In 22.0% of all cases (306 of 1392) there was a problem/conflict with the patient regarding hospital discharge, in 8.1% (112 of 1383) a problem/conflict with relatives regarding hospi-

**Table 1:** Sample characteristics.

	Placement after hospital discharge		Age (years)		Sex n (%)		Length of stay (days)	
	n	%	Mean	SD	Male	Female	Mean	SD
Home	553	39.2%	68	16.2	293 (53.0%)	260 (47.0%)	9.3	6.4
Rehabilitation	387	27.4%	71.2	13.1	206 (53.2%)	181 (46.8%)	16.6	10.3
Acute and transitional care	199	14.1%	83.4	9.5	64 (32.2%)	135 (67.8%)	12.9	6.5
Nursing or elderly home	125	8.9%	84.6	9.8	40 (32.0%)	85 (68.0%)	13.5	11.9
Others (e.g., psychiatry, palliative care)	60	4.3%	69.2	12.7	25 (41.7%)	35 (58.3%)	16.0	10.3
Geriatric hospital	53	3.8%	83.6	6.7	26 (49.1)	27 (50.9)	17.7	10.8
Health resort	26	1.8%	72.6	13.9	7 (26.9%)	19 (73.1%)	10.9	4.9
Unknown	7	0.5%	54.9	22.6	3 (42.9%)	4 (57.1%)	4.0	2.2
Total	1410	100.0%	73.2	15.1	664 (47.1%)	746 (52.9%)	12.8	9.1

SD = standard deviation

tal discharge, and in 33.2% (454 of 1369) other problems existed regarding hospital discharge, e.g., spouse had to be placed, too. With regard to patients (28.6 vs 20.6%,  $p = 0.01$ ) and relatives (12.6 vs 7.2%,  $p = 0.01$ ) significantly more problems occurred for patients released to ATC when compared with patients released elsewhere. Regarding the subcategories of problems, financial issues were more often encountered with patients released to ATC than patients released elsewhere (4.5 vs 1.0%; no testing owing to small numbers).

### ATC vs rehabilitation patients

Comparison of patients released to ATC with patients released to rehabilitation (table 1) showed that more men than women were released to rehabilitation (206 vs 181), and more women were released to ATC (135 vs 64). We considered that this might have been due to the age difference (mean age 71.2 vs 83.4 years), so we performed two logistic regression analyses with discharge into rehabilitation and ATC as dependent variables (table 4). These regression analyses confirmed that being female was associated with a higher chance of being discharged to ATC (odds ratio [OR] 1.52,  $p = 0.014$ ). Age was also a positive predictor for a discharge into ATC (OR 1.083,  $p < 0.001$ ). A discharge into rehabilitation was positively associated with

**Table 2:** Appropriateness of exit date – ATC vs non-ATC.

		Total		ATC		non-ATC	
		n	%	n	%	n	%
How was exit date from medical perspective?	Too early	19	1.4	0	0	19	1.6
	Total right	929	66.6	125	63.1	804	67.2
	Too late	345	24.7	58	29.3	287	24
	Don't know	101	7.2	15	7.6	86	7.2
	Total	1394		198		1196	
How was exit date from patient's perspective?	Too early	87	6.4	22	11.5	65	5.5
	Total right	940	68.9	127	66.1	813	69.4
	Too late	137	10	7	3.6	130	11.1
	Don't know	200	14.7	36	18.8	164	14
	Total	1364		192		1172	
How was exit date from social service worker's /palliative care / nurse's perspective?	Too early	33	2.4	3	1.5	30	2.5
	Total right	1025	73.6	152	76.4	873	73.1
	Too late	223	16	28	14.1	195	16.3
	Don't know	112	8	16	8	96	8
	Total	1393		199		1194	
Did the patient agree with the exit date?	Yes	1095	78.7	142	72.8	953	79.6
	No	88	6.3	18	9.2	70	5.8
	Don't know	209	15	35	17.9	174	14.5
	Total	1392		195		1197	
Did the family agree with the exit date?	Yes	802	58	141	73.4	661	55.5
	No	43	3.1	10	5.2	33	2.8
	Don't know	538	38.9	41	21.4	497	41.7
	Total	1383		192		1191	

**Table 3:** Comparing conflicts associated with hospital discharge – ATC vs non-ATC.

	Total		ATC		non-ATC		p-value	n (ATC/non-ATC)
	n	%	n	%	n	%		
Were there problems/conflicts with patient regarding hospital discharge?	306	22.0	57	28.6	249	20.6	0.01	1392 (1195/197)
With cost approval	30	2.2	3	1.5	27	2.2	*	1393 (1196/197)
With financial issues	21	1.5	9	4.5	12	1.0	*	1392 (1195/197)
To find a place	126	9.0	21	10.6	105	8.7	*	1393 (1196/198)
Regarding medical complications	62	4.5	8	4.0	54	4.5	*	1392 (1195/197)
Due to high care needs after discharge	19	1.4	2	1.0	17	1.4	*	1392 (1195/197)
Due to insufficient familial resources	5	0.4	0	0.0	5	0.4	*	1392 (1195/197)
Others	136	9.8	26	13.1	110	9.1	*	1392 (1197/195)
Were there problems/conflicts with relatives regarding hospital discharge?	112	8.1	25	12.6	87	7.2	0.01	1383 (1186/197)
With cost approval	4	0.3	1	0.5	3	0.2	*	1383 (1186/197)
With financial issues	8	0.6	4	2.0	4	0.3	*	1383 (1186/197)
To find a place	43	3.1	9	4.5	34	2.8	*	1383 (1186/197)
Regarding medical complications	5	0.4	0	0.0	5	0.4	*	1383 (1186/197)
Due to high care needs after discharge	9	0.7	1	0.5	8	0.7	*	1383 (1186/197)
Others	60	4.3	12	6.0	48	4.0	*	1394 (1197/197)
Were there any other conflicts/delays?	454	33.2	70	35.2	384	31.7	0.38	1369 (1174/195)

\* No testing because of small numbers.

the length of stay (OR 1.068,  $p < 0.001$ ), and negatively associated with age (OR 0.988,  $p = 0.04$ ) and being female (OR 0.733,  $p = 0.004$ ).

## Discussion

The study evaluated the implementation of ATC for patients in need of care after hospital discharge. ATC is generally perceived to be well implemented in the Swiss canton of Zurich, and 199 patients from our sample were released into this care service after a hospital stay. However, most of the patients in our sample were released home (with or without help) and into rehabilitation.

Upon comparing patients released to ATC with other patients, this study found firstly that patients discharged to ATC more frequently considered their exit date as too early than those who went elsewhere. Secondly, patients released to ATC as well as their relatives were reported having had more problems/conflicts with regard to their hospital discharge than other patients. For the kind of problems/conflicts, a significant difference for both patients released to ATC and their relatives was found for financial reasons, indicating that these patients were more dissatisfied because of financial concerns. Thirdly, the probability for women to receive ATC is significantly higher than for men, whereas they have significantly lower chances of being transferred to rehabilitation.

The concept of transitional care has been introduced in other countries. Its implementation differs in terms of length of stay and number of nurses, but the general goal is to reduce the length of hospital stays or even prevent hospital stays, and facilitate return to home after the hospital stay [15, 16]. In Norway, it was shown that the introduction of an intermediate-care hospital can reduce the length of hospital stay without increasing the health risk for the patient [16]. However, as indicated by the name “hospital”, these institutions are more medical than the Swiss concept of ATC [17]. For Switzerland, no research on the outcomes of ATC exists to our knowledge.

To enhance the timeliness of discharge under ATC and to avoid delays in the canton of Zurich, an agreement between the municipal hospitals and municipal nursing homes ensures that patients from these hospitals can be allocated a place for ATC within 48 hours [18]. The selected nursing home where the patient would receive ATC may not necessarily be the institution of his or her first choice. Dissatisfaction with the institution to which a patient is transferred might explain why ATC patients regarded their discharge as rather quick and therefore too early. Additionally, more relatives in the ATC group deemed the date of release as either too early or too late. For other patients, more relatives were indifferent to the date of release. We suppose that, because of the ATC patients’ advanced age and ATC’s associated cost implications, relatives are gen-

erally more involved in the decision making for ATC and therefore also communicate their opinion more frequently to social service workers, nurses, or palliative care team.

There are two explanations for the above findings. First, the ATC option might have been the last resort to discharge patients with care needs for whom rehabilitation approval might have been refused by health insurance, resulting in feelings of greater dissatisfaction and thus more problems/conflicts. Second, the different payment schemes might cause further dissatisfaction. Rehabilitation and geriatric hospitals are covered by insurance and the canton at the same rate as the acute hospital stay, whereas in nursing homes, ATC patients must pay for their “hotel costs” and food. Health insurance only covers the care and medical costs. This might cause additional problems/conflicts and also explains the higher number of financial issues for this group of patients and their relatives.

An important result of this study is the gender difference that was evident when ATC patients and rehabilitation patients were compared. Another Swiss study on oncological rehabilitation found no significant gender difference between rehabilitation users and nonusers [19]. The oncology study, however, found that there was a trend ( $p = 0.149$ ) that more men participated (58 men vs 43 women) and more women did not participate (72 women vs 65 men) in inpatient oncological rehabilitation. A gender difference in favour of men is described for cardiac rehabilitation [20, 21]. From our data, we cannot determine what type of rehabilitation was received by our study sample. With respect to cardiac rehabilitation, lower rates for women were attributed in previous studies to the underestimation of their risk by medical personnel, communication barriers, and patients’ prioritisation of other duties [22, 23]. Standardised referral processes encourage women to undergo cardiac rehabilitation on the same level as men [21].

Elsewhere in Switzerland, discharge planning for older inpatients was shown to be rarely organised in a standardised way [24]. The time constraints under DRG might further increase the pressure to release patients without analysing their needs in a structured and comprehensive manner. Therefore the existing disparity between men and women regarding a transfer to rehabilitation might be increased by the existence of ATC as an easy measure for the hospital to discharge patients within a reasonable delay. This might result in higher costs and less adequate treatment offers for the concerned predominantly female patients.

## Strength and limitations

To our knowledge this is the first study collecting and analysing empirical data on patients’ hospital discharge after two important changes: the introduction of ATC in 2011 and the implementation of SwissDRG in 2012.

As the choice of a discharge option is directly linked to patients’ care needs after the hospital stay, it is most appropriate to survey staff members responsible for the organisa-

**Table 4:** Logistic regression analyses with for discharge into rehabilitation and ATC (n = 1403).

	Discharge to rehabilitation			Discharge to ATC		
	OR	p-value	95% CI for OR	OR	p-value	95% CI for OR
Age	0.988	0.004	(0.98–0.996)	1.083	<0.001	(1.065–1.102)
Female sex	0.733	0.014	(0.572–0.939)	1.522	0.014	(1.089–2.127)
Length of stay	1.068	<0.001	(1.052–1.084)	1.007	0.442	(0.989–1.026)

ATC = acute and transitional care; CI = confidence interval; OR = odds ratio

tion of hospital discharge and making provisions according to the care needs of the patients. The staff (social service workers, palliative care team members and nurses) whose expert opinions were sought had the most comprehensive insight on patients', relatives' and medical staff's views. Nevertheless, this also meant that we did not directly collect patients' and relatives' opinions, but reported what our staff experts believed to be the views of patients and relatives based on their interactions and knowledge about the specific case. This subjective opinion is certainly a weakness of the study.

Data were obtained comprehensively between April and December 2016. Thus, most (if not all) cases of discharge of patients in need of care were reported in our study. The inclusion criteria "patients in need of care after hospital discharge" can be considered as vague and possibly was interpreted differently by participants from social service workers and nurses from general units, as well as those from the palliative care team. In some cases, quite young patients with a one-night hospital stay were included. To assure the quality of our sample, we excluded all cases where it was clear that no care was needed (please refer to [fig. 1](#)).

As a cross-sectional study carried out at one hospital in one canton, the study is only able to describe the care situation at the time of discharge for this context. Since cantonal differences in ATC usage exist [25], our results may not be generalisable to other regions of the country. Although ATC has been introduced by law for the entire country, its implementation varies widely (e.g., provision in nursing and elderly homes as in Zurich vs provision by Spitex at the patients' house). Finally, we acknowledge that our data are also limited to the specific time frame of when it was collected and that the situation might change over time as DRG and ATC are still relatively new measures in Switzerland.

## Conclusion

ATC was introduced to alleviate the effects of introduction of DRG-based reimbursement in Swiss hospitals, but its implementation varies widely between cantons. Our study found several indications of problems with the prescription of ATC in a Swiss hospital. ATC prescription might particularly affect female patients as they are less likely to receive rehabilitation upon discharge from the hospital. As patients transferred to ATC have higher cost contributions and may receive less intensive re-education compared with patients going to rehabilitation, there is a need to ensure that the process is based on equality and need. Therefore, to provide equal chances for patients to receive correct measures that fully respond to their care needs after hospitalisation, a standardised assessment of patients' needs for ATC, rehabilitation or other services should be established. Further research is necessary to better understand how hospital discharge planning is organised, how much patient wishes effect the decision making, which further factors affect the choice of the discharge option (e.g., diagnoses, specific treatments), and how different stakeholders (medical/nursing personnel, relatives, patients) influence this choice. It is also essential to evaluate the potential of ATC to reintegrate patients into their own home and to assess

the long-term outcomes of these patients (e.g., hospital readmission rates, mortality, care needs).

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## Competing interests

No potential conflict of interest relevant to this article was reported.

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Appendix 1

### **Social Service Worker Questionnaire**

The questionnaire is available as a separate file for downloading at: <https://smw.ch/en/article/doi/smw.2017.14575/>