Experts’ perspectives on SwissDRG: second class care for vulnerable patient groups?

On the 1st of January 2012, Switzerland introduced the diagnosis-related group hospital tariff structure (SwissDRG). It was recognized that healthcare provided to the most vulnerable patient groups would be a challenge for the new SwissDRG. Coincident with the implementation of SwissDRG, we explored hospital experts’ perceptions of which patient groups are vulnerable under the SwissDRG system, what has changed for this group, as well as solutions to ensure adequate access to health care for them.

We interviewed 43 experts from 40 Swiss hospitals. Participating experts named several vulnerable patient groups who share some common characteristics. These hospital experts were concerned about the patient groups that are not financially profitable and questioned the practicability of the current regulation. At the same time, they highlighted the complexity associated with caring for this group under the new SwissDRG and reported measures at the macro, meso, and micro levels to protect vulnerable patient groups from negative effects.

To curb negative outcomes for vulnerable patient groups after the introduction of the SwissDRG, the Swiss legislation has introduced various instruments including the acute and transitional care (ATC) measures. We conclude that ATC measures do not produce the expected effect the legislators had hoped for. More health data is needed to identify situations where vulnerable patient groups are more susceptible to inadequate health care access in Switzerland.

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Background

With the introduction of the Swiss diagnosis-related group (DRG) hospital in-patient payment system as of January 2012, the Swiss Federal Council aimed to create an incentive to contain the increasing cost of healthcare [1]. This new tariff structure forces hospitals to produce economically efficient outcomes by reducing the length of stay and the number of services provided as well as maximizing the number of (profitable) cases [2 – 4]. Scholars and healthcare professionals have feared that its introduction would decrease the quality of care provided to patients, particularly those who would fall within the less profitable DRG groups [5, 6], because the increase in the number of cases can lead to medically non-indicated treatments, to inpatient rather than ambulatory treatments and possibly to (too) early discharge from hospital [7 – 9]. However, a few studies that have examined the effect of SwissDRG conclude that there have been no significant changes to length of stay and quality of care [10, 11]. The authors of these studies recommend caution and further monitoring of this developing hospital in-patient payment system in Switzerland before drawing definite conclusions. Thus, the risks remain that there could be an expansion of
services for non-medically indicated, but profitable treatments, and provision of fewer services for non-profitable, medically indicated treatments. Such circumstances raise not only economic concerns, but also ethical questions.

The major ethical concerns are the negative effects of this new health care regulation on the welfare of patients, the quality of health care service they receive, and access to health care particularly for vulnerable patients. In response to this possible consequence of the SwissDRG, it was deemed important to examine its consequences parallel to its implementation. Thus, a nationally funded study examining the SwissDRG was carried out between January 2011 and December 2013 in Switzerland, which has resulted in several significant findings [2, 12 – 14]. One of the most valuable finding from an interdisciplinary perspective are its impact on the quality and safety of patient care in general, the state of professional practice of physicians and nurses, changes in incentives structures and vulnerable groups, and access to healthcare services [12].

International research shows that vulnerable patient groups present a challenge to the DRG system in light of the complex nature of their illnesses. These groups include older patients [15 – 17], children [18, 19], person with multiple morbidities [20], persons with substance use disorder, and prisoners [21 – 24]. They thus may require longer than average hospital stays and specialized care because of their particular health reasons [15, 16, 19 – 21]. Expecting that in the SwissDRG there are vulnerable patient groups who may require special attention, this qualitative study sought to explore the perspectives of experts on the question of vulnerable patient groups, derive concrete recommendations for optimal use of the SwissDRG, and evaluate how its negative impact on patient care could be reduced. Therefore, in this paper, we seek to answer the following research questions using interviews carried out with experts working in the hospitals:

(a) Which patient groups are generally considered to be vulnerable in the Swiss health care system (hospital setting)?
(b) What has changed for these groups since the introduction of the SwissDRG?
(c) How is adequate and fair access to health care for vulnerable groups guaranteed?
(d) What should Swiss hospitals undertake to provide proper treatment to patients belonging to these vulnerable groups?

Methods
Participant recruitment for this study began in February 2012 and the last interview took place in December 2012. We purposively recruited a sample of 43 experts working in 40 hospitals in Switzerland. The first author contacted all prospective study participants via letter informing them about the study and requesting their participation. All of the 43 experts contacted, agreed to participate in this study. The 40 hospitals were classified as follows: 7 university hospitals (including children hospital), 28 public hospitals, and 5 private clinics. They were located in 24 of the 26 cantons in Switzerland. The 43 experts were hospital directors and persons responsible for quality, coding, finance, and medicine controlling. All experts gave written consent to participate in the study. Repeat interviews were not done for the study.

The first author conducted these interviews either in German or French during which no other person was present other than the interviewer and the interviewee. These interviews took place at their work place and were on average 80 minutes long. A semi-structured interview guide incorporating questions on experts’ perception of changes after the introduction of SwissDRG were used to frame the discussion. Examples of questions included: “How is fair and appropriate access to health care for different patient groups (esp. marginal groups) ensured?”; “To what extent do you think lump compensations are accompanied by forms of rationing?”; “Can you explain to me what your understanding of rationing is?” Data saturation was reached by the 36th interview. However, remaining scheduled interviews were carried out to ascertain that no new concerns related to the SwissDRG remain unexplored.
All interviews were tape-recorded and transcribed into the language of the interview. The first author read the transcripts several times and during this preliminary analysis, the topic of vulnerable patient groups and what has changed for them since the SwissDRG emerged as an important topic. We used a thematic approach to analyze the data for this manuscript [25, 26] because of the explorative nature of the study. We utilized qualitative analysis software Atlas.ti to support the thematic coding procedure. The first author carried out the initial coding procedure and derived the coding tree with the themes and sub-themes for this manuscript. All authors discussed the themes and sub-themes coded within this topic and agreed on the findings presented below. Quotes from the experts are used in the results to exemplify the findings. All information in [] mean that it is added to give meaning to the entire sentence since we are presenting the gist of what was said and not the entire interview. An independent assistant fluent in all languages translated these quotes from German or French to English, and one of the authors checked the translations.

**Study Limitations**

The study began collecting data in February 2012, only a month after the introduction of the SwissDRG, so this start date could be a limitation. However, many of our participants worked with this hospital billing system before its official nationwide implementation. Also, several participants had many years of experience with DRG, as some hospitals had already started using it in Switzerland [10]. As a qualitative study, it presents the experiences and opinions of the experts, and does not claim any generalizations. The inclusion of healthcare experts working in different levels of hospital management highlights the appropriate diversity of opinions surrounding this topic. Furthermore, this study carefully evaluates informants’ perceptions about the SwissDRG at the time of its implementation. In doing so, it highlights what our study participants perceived to be happening right after the new hospital tariff structure came into force. It however does not tell what happened later and over time, which would require another set of research questions and interviews. Our study thus paves the way for such and other future studies, including quantitative examination of the SwissDRG.

**Results**

Our analysis of the topic, vulnerable patient groups, and the SwissDRG resulted in three themes: (a) description and awareness of vulnerable patient groups; (b) changes after the implementation of the new tariff structure; and (c) measures to ensure an adequate access to health care.

**Descriptions and awareness of vulnerable patient groups**

Participating experts reported that there are various groups of vulnerable patients in routine hospital practice. These patients were deemed vulnerable due to different factors, including their (a) health status; (b) age; and (c) socio-economic background. Those who were vulnerable due to their health status consisted of patients with multiple morbidities, those with dementia or rare disease, and patients in need of expensive medications or intensive nursing care (which extends the lengths of stay in hospital). Also classified in this category were patients requiring palliative care and patients for whom care after a hospital stay could not be organized easily. Included in the vulnerability due to age were very old patients, newborns, and children in general. Finally, patients deemed vulnerable in association to their socio-economic background comprised persons with disabilities, alcohol and drug problems, living with HIV-AIDS, prisoners, homeless, immigrants, asylum seekers, person without residency permits, stateless persons, individuals ineligible for Swiss social insurance, and patients with lacking language skills.

I. “... the multimorbid, highly complex cases are actually not well enough compensated, [in the case of] all the seriously ill, costly and time-consuming patients, one could say these expensive, outliers are currently poorly compensated ...” (P 36)

II. “Those are very vulnerable groups because, and I state again, the elderly grandmother with Diabetes and Alzheimer who broke her hip, is surely going to be transferred from the private clinics to a public hospital because they do not want her there as they know she will stay longer, she will need
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different services and she will recover very slowly. And that she will not leave her bed immediately.»
(P 16)

III. «From my point of view, a vulnerable group includes patients with social problems. From a medical perspective they do not need hospital treatment anymore, but they will not be well taken care of at home.» (P 17)

IV. «So here we have a vulnerability which is connected to complex issues such as clinical, economic, cognitive, functional problems that occur within one and the same person. I think, these are groups who become more and more vulnerable. We can find them in connection with age and in connection with socio-economic conditions. We will find the same vulnerabilities, meaning the complexity … with the poor who, [for example], have problems with alcohol, with drugs and other health issues.» (P 16)

For some of the participating experts, vulnerable patients were also those who can be characterized as ‘weak’ in terms of dependency on others or lacking autonomy. They stated that most of the vulnerable persons belong to groups with a very small population (rare diseases, babies), a group that receives very little political support (lacking lobby, children, immigrants …), or those with more than one vulnerability.

V. «People, who no longer can exercise their autonomy to a certain extent whether physically or mentally, are vulnerable.» (P 9)

VI. «One vulnerable group is probably the children. Also those who have very rare, serious diseases that never reached a consensus within the DRG system.» (P 12)

VII. «I think vulnerable groups are those who are weak, as in any system, those with no lobby. And this does of course exist in health care, too.» (P 19)

Most experts mentioned the failure of the new tariff structure to represent all groups of patients accurately, and they noticed that there is a lack of incentives to provide appropriate care and treatments for these insufficiently represented groups (e.g. rare disease, chronic disease, palliative care and children) in the current system.

VIII. «It is typically very difficult to accurately quote the DRG flat-rate payment. Certain matters we will not be able to represent in a DRG because the aim of the flat-rate payment is to do the minimum possible and to discharge as quickly as possible. This is the DRG concept, which of course contradicts a palliative approach.» (P 8)

IX. «The second group, and this group is probably more vulnerable, they also endanger us as well, is the group of chronically ill patients. It is recognised that these patients are not (yet) well represented in the DRG system. There are so few cases which require so much effort [healthcare services] that a [an adequate] representation within a DRG system, [which is] oriented toward the average, will never be fully recognised. I think vulnerability is caused by poor or not yet sufficient representation of both, simple and difficult cases within the DRG for paediatrics.» (P 27)

X. «I am thinking, for example, of an alcoholic who must be taken care of at the hospital. This care will never be reimbursed by the DRG. This type of patient group is predestined to be hit harder in terms of discharges [to a different place], I think.» (p13)

Changes after the implementation of the new tariff structure

Study participants reported two things that have changed for vulnerable groups since the implementation of the SwissDRG. First, they estimated that vulnerable patient groups are moved more frequently, i.e. from private to public hospitals. Second, in determining when a patients should be discharged from the hospital, decisions are made in light of economic outcomes. Study participants stated that patients who need care from internal medicine are older and suffering from multiple morbidities, and are more often discharged prematurely. The reasons for early discharge included (as mentioned above) their poor repre-
sentation in the new tariff structure. Thus, these patient groups are financially less attractive patients for hospitals\textsuperscript{XI}.

\textsuperscript{XI} «… because at the moment they [the groups of vulnerable patients] are not being very well compensated by the system, the tariff structure. I do not think that the change is caused by DRG itself, the problem was already there. At the best, DRG acted as a catalyst. Now it [the problem] is becoming more transparent.» (P 36)

Evident in the above quote is that the experts do not believe that the SwissDRG has caused these negative effects, but has exposed it, making these discriminations more transparent. In general, participating experts expressed that the discriminations are not due to SwissDRG per se, but result of how the new tariff system was designed\textsuperscript{XI, XII}.

\textsuperscript{XII} «Which groups form the vulnerable ones depend very much on the structure of the DRG system, not categorically on DRG but on the configuration of the system.» (P 36)

**Measures to ensure an adequate access to health care**

Measures to ensure adequate access to health care have existed since these experts anticipated changes to occur after the introduction of the SwissDRG; they were motivated to react to these changes in order to ensure positive outcomes. They mentioned several measures that would protect vulnerable patients at the macro, meso, and micro levels. The macro level includes national and state level legal measures, meso level revolves around the activities of healthcare institutions, and micro level underlines the actions that healthcare professionals can take to improve the quality of care provided to vulnerable groups.

**Macro level: Improvement of legal instruments and SwissDRG tariff structure.**

In order to prevent negative outcomes from the introduction of the new tariff structure, such as shorter lengths of hospital stay and patients at risk being discharged earlier, the Swiss legislation has introduced a new instrument to mitigate against this risk. The new instrument enacted was the acute and transitional care (ATC; Art. 25a Abs. 2 KVG), which was meant to provide access to healthcare institutions, especially for the most vulnerable patient populations. Most experts reported that ATC does not have the effect legislators had hoped for and thus, questioned its practicability. That is, our key informants expressed that the compensation was inadequate, or that there were other reasons why discharging patients sooner from hospital was challenging, such as social or psychological issues in vulnerable patients\textsuperscript{XIII-XV}.

\textsuperscript{XIII} «There are of course incentives to discharge the patient as soon as possible either to their home or to transitional or rehabilitation care, which medically is not a problem. But it could particularly be a social or psychological issue if the patient does not feel healthy enough. Especially elderly patients who do not feel healthy enough to be outside of the protecting hospital structure. The problem depends more on the mental but also on the practical [issues, such as] having to rely on help.» (P 22)

\textsuperscript{XIV} «We are all of the opinion that two weeks [of compensation as provided by the ATC] are too short, they do not do us anything good and we said no, we will not do that.» (P 6)

\textsuperscript{XV} «Transitional care is a sensible complement to the DRG system. The contractual regulations and financing options need to be extended. Currently we cannot offer transitional care. […] the ATC as it is in the regulations currently is neither “a fish nor a fowl” and there is so little money available that we cannot even offer the service. It is not a good solution.» (P 17)

**Meso level: Hospital’s initiatives and evaluations.**

The findings from the interviews highlighted that hospital experts are concerned about the patient groups that are not financially profitable\textsuperscript{X}. They discussed measures that are being taken to ensure adequate access to health care service for different patient populations and particularly vulnerable groups. For instance, they noted that to remain profitable, many clinics have started projects designed to support patients with several pathologies, comorbidities, and those who are chronically ill. One hospital reported
establishing a value system with the following key points: human and ethical treatment, no discrimination, equal treatment, no refusal of treatment for any medical reason, and no refusal of treatment to unprofitable patients\textsuperscript{XVI}.

\textsuperscript{XVI} «Yes, we have fundamentally renewed our strategy and in this strategy we have, as you usually do, values, mission statement, vision and a value system that says we want to act humanely. We define what that means: we want to act ethically, we do not discriminate against patients or members of staff, our principles of treatment are the same for all patients and according to the current state of science. We also commit ourselves to treating every patient. We added in this sentence, we do not decide based on any indication that is economic or other non-medical reasons. […] We do not reject any patient because we realise that they are going to be more expensive than the earnings and we do not provide treatment just because we think that it will be economically beneficial.» (P 33)

Several experts stated that a systematic evaluation of complaints from patients, their families, and medical professionals can address unethical conduct such as systematic deprivation of care to vulnerable patients\textsuperscript{XVII}.

\textsuperscript{XVII} «… we hope that a systematic assessment of our complaints will lead us into the right direction, if it would come to systematic deficit in health care for certain groups of patients.» (P 23).

\textbf{Micro level: Health-professionals’ roles.}

Participating experts felt that health professionals such as the hospital director, physicians, and nursing staff members can contribute significantly to better protect vulnerable patient groups in the hospital everyday life\textsuperscript{XVIII, XIX}. They can do so by critically observing the developments in the provision of care and by taking a strong position through their professional bodies and professional associations against any negative practices they observe. Participants mentioned that support from the hospital clinical ethics committees would be useful.

\textsuperscript{XVIII} «… to pass on to the doctors the policy, to which I referred earlier, not to work for Swiss Francs, but the patient is important.» (P 34)

\textsuperscript{XIX} «I feel here with the doctors and the nursing staff as well as in Germany the aspiration to act ethically and independent from income and religion and skin colour, to treat people as human beings, I believe is an acceptable solution to minimise a systematic marginalisation.» (P 23)

\textbf{Discussions}

Swiss hospital experts were aware of particularly vulnerable patient groups and were confronted with the challenges that this group poses as a result of the implementation of the SwissDRG in 2012. Similar to what is described in the literature [12], patients are deemed vulnerable because of their (a) health status; (b) age; and (c) socio-economic background (e.g. immigrants, refugees, homeless, and prisoners). Although we could not state that discrimination against such groups is taking place, the suspicion remains that where the care provided is not profitable, there is risk that hospital services for this group may be reduced. However, the interviews with experts underlined that the transition from acute care to transitional and home health (e.g. Spitex) care is perceived as dysfunctional. This is an important concern raised by the study stakeholders, which should be solved. Although the legislators have introduced ATC regulations to curb disruption of care from acute hospital to transitional care (e.g. home health care, rehabilitation), these regulations have not produced the protective effect for vulnerable groups that was intended [27]. Without a well-functioning ATC, the transition from acute hospital care to the other systems of care upon discharge is problematic and might adversely affect quality and quantity of care. This is because at the moment of hospital discharge different rules of the financing of care (inpatient or outpatient) apply. Due to the significant cost sharing by the insured person resulting from insufficient reimbursements under the new ATC legislation, there is a risk of under-supply as insured persons may not want to choose the best care in order to avoid such costs at their own expense.
Providing health care to patients from an immigrant background was seen as a challenge within the SwissDRG system. This is concerning because a quarter of the Swiss population are immigrants. As Germans and Italians compose most of the immigrant population, it cannot be stated that all immigrant group are vulnerable in equal degrees. Thus, a part of the immigrant population seems to be exposed to higher health risks to which the Swiss health care is not well prepared to address. This would include individuals unable to speak one of the national languages or English, individuals from different cultures, and contexts where health care seeking behaviours are drastically different from Switzerland [28 – 31]. This group will also include asylum seekers and those without documents who may be unaware of whether they could seek care without legal repercussions. A specific recommendation would be to introduce certified “MFH” (migrant friendly hospitals) to ensure the access for this vulnerable group of people and to adapt the health care supply based on their needs. Introducing such a unique health care setting is the goal of a group of selected hospitals in Switzerland in collaboration with the Ministry of Health and “H+” (Association of Swiss hospitals) as part of the MFH-projects [32].

Importantly, the present study revealed the work that is needed between different macro, meso, and micro levels to prevent second class care for vulnerable patient groups. At the macro level, guiding principles and internal standards are recommended. For instance, if a hospital fears that the basic price as accorded by the DRG system does not cover or insufficiently covers the expected treatment costs, they must work together to ensure that the reimbursement rules are corrected and that care is provided based on internal value system. That is, care provided must be in line with what is ethical behaviour specifically in relation to a daily routine in hospital. From an ethical perspective, there should be zero discrimination against patients whose conditions are not financially well represented in the DRG, and measures must be put into place to ensure equal treatment for patients based on scientific knowledge and with no reference to economic or other non-medical reasons. Explicitly formulated recommendations also appear to be supportive. For example, no patient can be refused due to cost concerns or a treatment is relinquished because it is not profitable for a hospital. Such specific guidelines can contribute towards preventing discrimination against vulnerable patient groups in daily hospital routines from the part of healthcare providers.

Thus all involved key players on the macro, meso, and micro levels must cooperate, coordinate, and support one another. As the new tariff structure SwissDRG was implemented less than five years ago, the government holds a leading position in making necessary changes based on the evidence presented in this paper, as well as on other works on SwissDRG published to date [2, 10 – 14, 27], and on upcoming new research projects funded at the national level on this topic.

**Conclusion**

The study reveals that the changing economic incentives in inpatient care may induce a shift in the service supply of hospitals. Especially services for patients with a high need for care are less attractive for hospitals. Our research also highlights important gaps that persist with the introduction of DRGs in Switzerland. *First*, data are lacking about inpatient-outpatient transitions. It is of crucial importance to determine what the consequences are if inpatient care is now often terminated earlier than in the past or shifted outside hospitals. *Second*, we lack knowledge about patients’ long term, sequential courses, and histories that can shed light on the transitions between different care types. Studies from other countries have reported that patients are discharged ‘quicker and sicker’ in light of the DRG financing system [5, 33], and we are yet to see if Switzerland will also see similar effects. Furthermore, there is no evidence about the factors that influence these transitions. Our hypothesis would be that health care providers such as hospitals and institutional physicians, treating physicians and patients have distinct possibilities and incentives to influence these transitions. It is also evident that the legal and wider regulatory frame-work and the different financing systems are factors that influence the transitions. The country reports from the OECD and WHO, which were published in 2006 [34] and 2011 [35], stated that more information about the treatment outcome and morbidity in the Swiss health care is needed. Missing data about hospital-external quality of supply impede patients from making informed decisions. A comprehensive data pool will not only facilitate the identification of patient groups that are especially vulnerable but it will also enable the development of efficient and appropriate health care strategies and contribute towards improving the quality of patient care in Switzerland [35, 36]. *Third*, past research on the new hospital funding and the introduction of SwissDRG have focused above all on the changes in the legal basis for hospital fund-
ing and its impact. A comprehensive and patient oriented view must also take into account another im-
portant change of the Swiss social security law: since January 1st 2011, the amendments on the reorgan-
ization of the financing of care from the Federal Law of June 13, 2008 apply. This interplay between the
new hospital financing and financing of inpatient and outpatient care provided by nursing homes and
home care organizations needs more attention from scholars, professionals and the public. There is a
lack of knowledge to what extent these two reformed financing systems interfere with the decisions of
providers and insured persons. Given the rapidly rising costs in the financing of health care, it seems
urgent to analyze this relationship on the one hand legally, but on the other hand also empirically. In par-
ticular, it must be born in mind that the system of supplementary benefits to the old age and survivor’s
insurance scheme and the disabilities insurance scheme (Ergänzungsleistungen AHV/IV) has been up-
graded to a proper tax-funded nursing care in the context of the new system of care financing. Many fac-
tors that influence decisions of patients and care providers have changed in this context, which has not
been investigated by legal science or medico-social studies.
References


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