

**Financement: les AP-DRG en Suisse**  
**Das AP-DRG System in der Schweiz**  
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# Financing: AP-DRGs in Switzerland

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Developed more than fifteen years ago in the United States, AP-DRGs (All Patient Diagnosis Related Groups) have, despite their ancientness, enabled very useful experiments to be conducted and different Swiss cantons to be prepared for a future system of financing, better than all the called upon theories on this subject.

**D**RGs (Diagnosis Related Groups) are a hospitalisation classification developed at Yale University by Robert Fetter and his team at the end of the 1960s (1). In 1983, American Congress introduced DRGs in the United States as *the* system of hospitalisation reimbursement for patients insured by Medicare.

The term "DRG" applies not only to the initial classification developed by Robert Fetter, but also to a whole range of derived classifications (R-DRG, SR-DRG, AN-DRG, AR-DRG, IR-DRG, etc.). The history of DRGs and their characteristics appear in various publications (2,3,4). Here we will not describe the features of AP-DRGs but rather the manner in which they are progressively being used in Switzerland.

## AP-DRGs (All Patient Diagnosis Related Groups)

The DRGs used by Medicare (usually called Medicare DRGs or HCFA-DRGs) only have a very limited number of groups for the classification of hospitalisations in neonatology, paediatrics and gynaecology-obstetrics. As of 1988, the State of New York wanted to introduce reimbursement by DRGs for all hospitalisations, including that of persons not insured by Medicare.

Consequently, the New York State Department of Health developed AP-DRGs in collaboration with the company 3M HIS ([www.3mhis.com](http://www.3mhis.com)). The AP-

DRG name (All Patient Diagnosis Related Groups) clearly indicates that it concerns a classification which aims to group together all hospitalisations for acute somatic care, whatever the age of the patient.

The development of AP-DRGs was made by preserving the principal rules of construction of the Medicare DRGs, and by supplementing them, in particular to meet legislation, which required that newborns and patients infected with HIV (human immunodeficiency virus) were taken into consideration in an appropriate manner. The National Association of Children's Hospitals and Related Institutions (NACHRI) developed PM-DRGs (Paediatric Modified Diagnosis Related Groups), which were adapted and integrated into the AP-DRGs. The other important changes are the creation of specific groups for liver, lung, heart, kidney and bone marrow transplants as well as polytraumatism, and the introduction of two types of comorbidities and complications (CC), in place of one: CCs (simple) and major CCs.

## The work of the Swiss AP-DRG group

Since their introduction in the United States, DRGs have been of interest to Swiss research teams. In 1984, a study was launched by the University of Lausanne's *Institut universitaire de médecine sociale et préventive (IUMSP)*

and the public health service of the Vaud canton, with the support of the cantons of Bern, Fribourg, Geneva, Jura, Neuchâtel, Soleure, Tessin and Valais. The results of this study were published in 1989 (5) and followed by various initiatives aimed at promoting the DRG financing of hospitals for acute somatic care. This financing, also called "financing by pathology" or "financing according to casemix", was in fact becoming necessary in order to confront the commotion of attempts to reduce hospital budgets without serious methods or studies, and to offer partners of the health system (the State, insurers, suppliers of care and patients) a real tool for dialogue, which could contribute to a better allocation of resources and an improved command of costs.

Nevertheless, there was almost no political desire to introduce DRGs on a national level. A group was thus created in 1997 by people representing about twenty hospitals, health administrations from a few of the cantons, a handful of insurers and the *Fédération des Médecins suisses* (Federation of Swiss Doctors).

This group had to find software that allowed hospitalisations to be classified according to the variables of the discharge summary that each Swiss hospital is required to establish for every hospitalisation. As in the majority of countries with medical statistics, this sum-

mary includes administrative data (age, sex, date and method of admission, date and method of discharge, etc.) as well as the diagnostic codes and the surgery codes attributed according to the information recorded in the patient's file. The classifications used in Switzerland for medical coding are CIM-10 (International classification statistic for diseases and related health problems, tenth revision) and CHOP (Swiss classification for surgical operations), CHOP being the translation in German, French and Italian of the classification of operations currently used in the United States (ICD-9-CM Vol. 3).

As there was no software which could handle the Swiss discharge summaries, the group, which had decided to introduce DRGs in Switzerland, either had to invent one, or negotiate the adaptation of existing software to the characteristics of the Swiss medical statistics. The second solution was selected because the development of software specific to Switzerland would have been very costly and represented a disproportionate task, bearing in mind the small number of potential users.

The company 3M HIS produced "AP-DRG Version 12 adapted for Switzerland", the adaptation consisting primarily in regrouping the hospitalisations according to the diagnostic codes originating from CIM-10 instead of from ICD-9-CM. The advantage of AP-DRGs is that they can be used to classify all hospitalisations for acute care, they take better account of the complexity of cases than do Medicare DRGs and they do not have too many numbers (version 12 of the AP-DRGs includes 641 hospitalisation groups). A more sophisticated classification (APR-DRG, for example) would have been significantly more difficult to adapt to CIM-10 and would not have been of great use, given that at the time of selecting AP-

DRGs, medical coding was of a poor quality in most Swiss hospitals. Now a sophisticated classification requires excellent coding.

Despite its weak financial means, the group, which became known as "AP-DRG Suisse", succeeded in collecting and handling data essential to the calculation of the cost-weights applicable to the hospitalisations of acute care hospitals in Switzerland. The first version of these cost-weights was published at the end of 1998, the second in 1999 and the third in 2001. The fourth version, which appeared in May 2003, is available at [www.hospvd.ch/ise/apdrgr](http://www.hospvd.ch/ise/apdrgr).

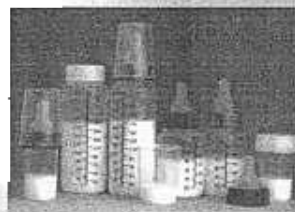
Once the essential ingredients had been gathered, financing by pathology could begin. As Switzerland is a very federalist country, particularly in the field of health, this process could not take place in one go, or in the entire country, but progressively, and in two regions, one German-speaking (canton of Zurich), the other French-speaking (canton of Vaud). In the Zurich canton, AP-DRGs are used by the public health department above all as a tool of comparison (benchmarking) between public hospitals, to adjust their budgets according to the characteristics of the patients who are admitted there (casemix).

In the Vaud canton, since 1st January 2002, hospitals have been invoicing each hospitalisation according to the AP-DRG in which it is classified, based on a tariff established by means of cost-weights and negotiated with the State and the insurers. Financing by global budget has nevertheless been maintained during an adaptation phase which should be completed by 31 December 2005, after which date each hospitalisation will not only be invoiced, but effectively reimbursed by the AP-DRG.

At present, various cantons are introducing or preparing to introduce financing based on a casemix, to the extent that about one third of Swiss hospitalisations will be reimbursed by AP-DRG.

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Furthermore, all the partners of the Swiss health system are now convinced of the necessity of such financing, while nevertheless using a different classification to AP-DRGs. The Swiss AP-DRG group believes, moreover, that the passage to another classification is perfectly justified if it brings advantages without creating additional disadvantages.

### An essential experiment

The introduction of AP-DRGs in Switzerland has been the subject of much criticism, and has created a great deal of resistance for essentially political reasons, unconnected to the problems that such a classification effectively causes. AP-DRGs are far from being perfect, and they will without a doubt be replaced by DRGs of more recent design. However, their use in the various regions of Switzerland in which they have been introduced to date has not led to any noticeable incidents, and has enabled the strengths and weaknesses of financing by pathology to be defined in practice, instead of being based on theories which are more or less complicated.

The experiments made have demonstrated, for example, the difficulties in choosing criteria from which hospitalisa-

tions are no longer considered normal (inlier), but atypical (outlier), and the importance of the financing rules of these atypical hospitalisations.

Some additional hospitalisation groups known as SPGs (Swiss Payment Groups) were created due to reimbursement situations specific to Switzerland (for example for transfers to another hospital, or deaths occurring within 24 hours of admission).

Furthermore, as the coding of medical files is a crucial activity, its quality has significantly improved in all of the regions in which AP-DRG financing has been introduced. This development has naturally delighted the specialists in medical statistics, who will finally have

data which is much more reliable than before. But there is a risk of passing from negligent coding to excessive coding, a reason for which simple, effective and inexpensive controls are now carried out to avoid cheating.

Whether we like it or not, in a few years' time all Swiss hospitals will probably be financed according to their casemix, because a federal law under development should force them to. To prepare for the enforcement of this law, a plan by the name of Swiss DRGs has just been launched. It should take over from the Swiss AP-DRG group, while benefiting from the experiments accumulated since its creation six years ago.

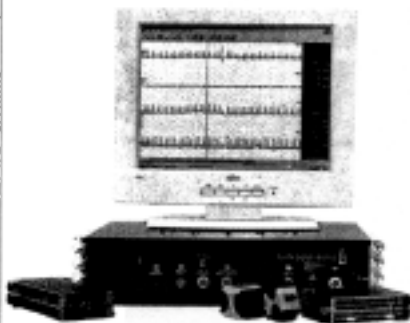
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