

## Polish Health Resource Groups (JGP)

A new system developed by the National Health Fund (NFZ) for calculating the payment for services to providers came into effect on 1 July 2008. Originally, the system was planned for 1 October 2007 but its implementation was delayed because of parliamentary elections and subsequently to introduce some improvements. This system known as JGP (Jednorodne Grupy Pacjentów) is based on the British Health Resource Groups (HRG). The intention is to motivate providers to be more efficient and therefore to halt rising expenditures. Diagnoses and procedures were grouped and a reference price was determined for the group. The previous method of reporting and accounting was based on a specified catalogue of services, but this did not reflect events and procedures and there was a 10-60% variation in actual reporting, which provided a basis for payment for services.

### The new system

The NFZ used data on services and expenditures from 2006-7 to prepare the system. Coding is based on the ICD-9 and ICD-10 classification which will provide for greater accuracy than hitherto. There are 492 groups (1500 in the previous catalogue) in 16 anatomical-physiological sections. Each group contains about 300 cases. At least 200 cases are necessary in order for a group to be formed. Some rarer procedures or those that do not fit into any groups such as intensive therapy, multiple trauma and special long stay cases such as burns and neonatal care or unique or infrequent cases such as liver transplantation were excluded and will be financed on a separate basis or will be included in a special group. Currently the system covers hospital in-patient services only and distinguishes between 3 types of treatment: acute hospitalisation, planned admission, and day treatment. Provisions for highly specialist hospitals were not initially in place. Expansion of the system to include ambulatory services is planned for mid 2009.

### JGP Pilot

Prior to implementation the system was tested in a pilot scheme involving 44 hospitals of differing referral level and complexity. The purpose of the pilot was to test the principles, to identify threats on the side of both providers and the payer and to institute appropriate remedial measures as necessary. Results from the pilot indicated that the main challenge was in coding accuracy. Improvement was seen during the pilot phase and it was clear that learning had an impact on accuracy.

The piloted hospitals showed variable aptitude in using the codes with the best facilities able to code 99.8% of hospitalisations and the worst only 45%. The problems related to incomplete disease coding, faulty procedure identification or failure to code for the more expensive procedures. This ability was not related to the size or complexity of the hospital and this variation in ability was also evident between different units within the same hospital. Good coding was associated with higher financial reward with average levels at 112% for the piloted group – therefore the feared drop in funding did not occur. The difficulty comes from the 30% of hospitals which were unable to code adequately (40-50% only) and there is a real threat of decrease in funding for these facilities.

This was not a software issue since testing of the NFZ software gave an acceptable error of 0.2%. The NFZ also tested their grouper to ensure it would have the



necessary capacity once the system went live and confirmed this to be the case. However, software issues were a concern since it was less certain how the commercial systems developed by software manufacturers for use by providers would perform.

### Transition period

A three month transition period allowed the hospital directors to submit simplified invoices in addition to the compulsory JGP report if there was a problem with functioning of the system. This provided an opportunity to sort any problems with coding and software and guaranteed that the hospitals would get at least one sixth of the value of their contracts even if such problems arose.

The NFZ had budgeted for the possible increase in funding generated by the JGP system. 2.7 billion PLN additional funds were available to cover the expected 12% average increase resulting from implementation of the system. The levels of increase in funding between specialities varied with those which had previously suffered from underfunding receiving more while others little or none. No therapeutic area was expected to receive less. There was also a change in the point value from 12 PLN to 48 PLN which was not just a multiple but to rectify previous inadequate valuing of some services. The NFZ expects the system to have a positive impact on the distribution of services

In order to encourage hospitals to make good progress with the system, those who attain a good level of reporting in the new system would be eligible for additional contracts.

The NFZ does not view the JGP as a static system but as a work in progress rather expects it to develop and adapt. Regular reviews together with the national consultants for therapeutic areas provide for feedback and amendment. This is evident in several amendments of the JGP grouper algorithm.

### Training

Training started in June, was expected to peak at the end of July and August and carry on till the end of the 2008. The first phase of training was descriptive covering the concept and principles. Further training courses intended for coders are planned over two years including e-learning and workshops. This training is supported by EU funds (European Social Fund), specifically from the development of human resources activity within the improvement in health care quality project. The specific aims are:

- training of 1500 managers and users of public funds
- preparation of IT instruments supporting education
- promotion of JGP as instrument of assessment of hospital accounting, quality and productivity

Trainees will be:

- managers at NFZ and hospitals who administer and maintain system
- hospital managers who code, report and select main and additional diagnosis and procedures

A variety of web-based learning support will be developed including examples. Instruments to enable monitoring to verify the impact of JGP will also be developed.

The newest grouper algorithms are posted on the NFZ web-page which has full details for those that need to use the system.

**Attitudes and progress**

There were many doubts concerning the readiness for the introduction of the JGP system. The Association of Health Care Managers (STOMOZ) while expressing general support of the concept asked the authorities to delay implementation till January 2009 and to use the autumn months as preparation. This request was based upon:

- initial absence of pilot data
- lack of consultation
- absence of coding training
- inadequate hospital information systems
- absence of verified ICD-9 classification manual
- failure to perform a test run
- failure to prepare comparison of expected funding based on JGP with current contracts

STOMOZ also stated their belief of the necessity to ensure appropriate conditions through:

- training
- provision of uniform IT instruments for grouping
- double accounting for a few months
- double statistical data submission

Early (6 week) feedback from hospital managers in the Małopolska region indicated that the main problems encountered were:

- software problems with the NFZ server and grouper accepting their transferred data
- repetitive changes in grouper algorithms
- absence of coding for many procedures
- impossibility of including all performed procedures within one hospitalisation report
- inadequate training of coders (too short and only theoretical)
- excessive administrative burden on doctors (responsible for coding)
- transition time too short
- bad timing of implementation (holiday season)

The managers stated that it was too early at that stage to indicate what the impact of JGP would be.

The National Consultant for urology identified several problems concerning this therapeutic area. The inability to include more than one procedure within a single hospitalisation was a serious concern since it was not uncommon for two separate procedures to be performed serially on one patient during a single period of anaesthesia. Similarly, it was not possible to code for a second procedure intended to deal with a complication which had arisen. Performing such procedures on separate occasions is neither in the patient's best interests nor in the financial interest of the NFZ.

Another issue was that of grouping adults and children. Paediatric urology has become a separate speciality because disorders in children do not only reflect their smaller mass (similar issue were raised by other specialists e.g. cystic fibrosis in which care pathways and dynamics are different between adults and children). Not only were many urological procedure missing from the JGP but the inclusion of many urological procedures within a general surgery group was an error since many of these required specialist equipment and experience. An independent analysis



requested by the Polish Urological Society (PTU) showed that the cost of most urological procedures was underestimated by the NFZ. Finally, the Consultant shared the general concern on the short period of implementation and administrative burden on doctors.

After a few months there was a suggestion that the implementation had been a success. The NFZ reported that after four months since implementation of the JGP 95% of hospitals were reporting in this JGP system compared with 83% after two months. In all the NFZ received 1900 proposals for amendments.

The situation looks somewhat different from the provider perspective. There is some concern that procedures which are missing from the system do not get performed since there is no way to claim for these, while additional procedures are included in treatment if they bring financial reward. Several changes in the grouper algorithm mean that repeat calculation have been necessary for services provided earlier.

While improving the situation for district hospitals JGP has had a serious negative impact on academic hospitals and specialist institutes since they tend to treat more complex cases but they receive the same average payment as other hospitals. The greatest impact was felt by children's services with the Centre for Child Health in Warsaw losing 2-3 million PLN per month. The situation was complicated by the low level of contracts proposed by the NFZ for 2009. These institutions formed a committee to negotiate for improved funding of their services.

A compromise was reached with about 20% increase in the number of points for specialist services although the point value will remain at 51 PLN. (The increase in point value from 48 to 51 PLN was to account for the merging of the NFZ financing streams, one of which represented salary increases). This point value is considered by providers to be too low and a non-public provider has calculated that the real value should be 60 points.

The JGP has not provided any insight into cost structure and the NFZ have a joint project with the Health Technology Agency (AOTM) to develop a questionnaire on costs of individual medical events and the software to count costs, but need to find funding for the collation of data. In terms of point value the NFZ have difficulty in discussing costs when they have no data and faced with National Consultants and hospital directors who argue that the NFZ has underestimated the cost of a procedure. Only information on real costs will allow for assessment of point value.

## Conclusion

There is no doubt that introduction of the JGP has improved the transparency of reporting and accounting by hospitals to the NFZ. It is not possible to assess the extent of moral hazard with regard to choice of procedures guided by presence or absence of a procedure within the system. Although the absence of many procedures, of inclusion of coexisting factors or morbidity within the system, resulting in the several amendments to the NFZ grouper algorithm could have been expected this has not made implementation and acceptance of the system easy. Perhaps the most serious criticism is that of insufficient training before implementation, especially since this could have shown up coding deficiencies that may not have occurred in the pilot. A longer transition period with double accounting could also have eased the burden. However, experience in Poland has shown that failure to introduce reforms and programmes quickly results in their not being implemented at all and therefore despite the initial difficulty things appear to be sorting themselves out, albeit slowly.

The absence of dedicated professional coders and the ensuing administrative burden on doctors requires attention on the part of health authorities and hospital managers.

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