## How the reform affected fracture surgery reimbursement and Quality in England?

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Health care reform refers to governmental policies that affects health care delivery at a National level of a given country. Such aspects of a National health service may be affected as the extent of the coverage, length of hospitalization, expansion of the array of health care providers consumers may choose among, prescription of drugs, acquisition of equipment and services, pricing and cost containment.

Recently, in the UK like any other westernized country the government has implemented health care reforms related to the service provision of orthopedic trauma patients which also included alternations in the issue of reimbursement.

## How funding works in England

Payment by Results (PbR) is the tariff based payment system that has transformed the way funding flows around the NHS in England. It is the payment system in which commissioners pay healthcare providers for each patient seen or treated, taking into account the complexity of the patient's healthcare needs. The two fundamental features of PbR are nationally determined currencies and tariffs. Currencies are the unit of healthcare for which a payment is made. Tariffs are the set prices for a given currency PbR covers the majority of acute healthcare provided in hospitals, and there are national tariffs for admitted patient care, outpatients and A&E. The currency for admitted patient care and A&E is the healthcare resource group (HRG). HRGs are clinically meaningful groups of diagnoses and interventions that consume similar levels of NHS resources. With some 26,000 codes to describe specific diagnoses and interventions, grouping these into HRGs allows tariffs to be set at a sensible and workable level. Under the latest version, HRG4, there are over 1,500 tariffs. Each HRG covers a spell of care, from admission to discharge. The currency for outpatient attendances is the attendance itself, divided into broad medical areas known as treatment function codes (TFCs).

When a patient is discharged, clinical coders translate their care into codes using two classification systems, ICD-10 and OPCS-4. Patient data is submitted to a national database called the Secondary Uses Service (SUS), which groups clinical codes into HRGs and calculates a payment Commissioners either pay variable amounts on the basis of actual activity undertaken or agree monthly payments to providers in the NHS standard contract, which are then adjusted for the actual value of activity in the monthly SUS report

## **Additional payments**

**Top-up fees:** Certain specialist services are remunerated by an additional 'top-up' fee.3 For example, there is an orthopaedic top-up code recognising the additional cost of specialized activity in the same HRG.

**Trim points:** These represent the expected duration of stay. If the actual length of stay exceeds this, excess bed days are calculated automatically from data entered by receptionists and secretaries. **Uplifts:** Market force uplifts are paid centrally to the trust.

**TARN:** The Trauma Audit and Research Network (TARN) data and injury severity score are interrogated to award money for meeting major trauma targets. A fee is paid to major trauma centres to reimburse them for the extra, complex work they

take on. The TARN coding team identifies appropriate cases from the HRG codes.

**CQUIN:** Commissioning for Quality and Innovation (CQUIN) payments represent small amounts of money provided by the commissioners but they are withheld unless certain agreed targets are met, even where specialist services exist and other quality assuring outcome measures are achieved.

Different policies supported by the National Institute for Health and Care Excellence (NICE) working group have been implemented focusing on the timely and co-ordinated care in different cohort of patients in order to improve outcomes. For successful application of these policies the best practice tariff (BPT) has been introduced in high volume areas with significant unexplained variation in quality of clinical practice and clear evidence of what constitutes best practice. The hip fracture BPT represents a great example of this reform. The BPT indicators for hip fracture care include:

- (a) time to surgery within 36 hours from arrival in an emergency department, or time of diagnosis if an inpatient, to the start of anaesthesia
- (b) involvement of an (ortho) geriatrician:
  - i) admitted under the joint care of a consultant geriatrician and a consultant orthopaedic surgeon
  - ii) admitted using an assessment protocol agreed by geriatric medicine, orthopaedic surgery and anaesthesia
  - iii) assessed by a geriatrician (as defined by a consultant, non-consultant career grade (NCCG), or specialist trainee ST3+) in the perioperative period (defined as within 72 hours of admission)

- iv) postoperative geriatrician-directed
  - a. multi-professional rehabilitation team
  - b. fracture prevention assessments (falls and bone health).

To qualify for the best practice tariff, all the characteristics in (a) and (b) (i) to (iv)above must be achieved. Compliance is being monitored through the National Hip Fracture Database (NHFD). The tariff is paid in 2 parts with the top-up payment for best practice paid quarterly.

The 'base tariff' (that is the payment a provider receives for not doing best practice) has been adjusted such that it is £110 lower than the 'conventional tariff' (what the tariff 'would be' if we didn't have best practice tariffs). This is to ensure that if current best practice provision is maintained, then the policy will be cost neutral. The 'best practice tariff' is £335 higher than the 'conventional tariff' i.e. £445 higher than the 'base tariff'. In other words, if you do best practice in one year, you will receive £445 more per case than if you don't. For example, a unit treating 350 hip fractures / year with 90% meeting the BPT requirements will result in just over £140,000 of additional income  $(0.9 \times 350 \times 455)$ .

The concept of the Best Practice Tariff is to provide an initial financial incentive to encourage all Trusts to take the first step to improve the quality of care of this vulnerable group of patients. But has actually made any difference? **Figure 1** below illustrates the increase in the number of patients over a period of time that met the BPT criteria in England.<sup>1</sup>



Figure 1.

There is also evidence that the reforms implemented in the management of hip fracture patients had a positive impact in terms of reducing the mortality rate in this cohort of patients.<sup>2</sup>

| Author | Year | No of patients | 30-day mortality<br>rate (%) |
|--------|------|----------------|------------------------------|
| NHFD   | 2013 | 64,838         | 8.02                         |
| NHFD   | 2012 | 61,508         | 8.2                          |
| NHFD   | 2011 | 53,879         | 8.5                          |
| NHFD   | 2010 | 54,129         | 8.8                          |
| NHFD   | 2009 | 53,427         | 9.2                          |
| NHFD   | 2008 | 52,600         | 10.4                         |
| NHFD   | 2007 | 52,435         | 10.9                         |
| NHFD   | 2006 | 50,732         | 11.3                         |
| NHFD   | 2005 | 51,408         | 11.4                         |
| NHFD   | 2004 | 50,995         | 11.0                         |
| NHFD   | 2003 | 51,985         | 11.5                         |

Figure 2.

The BPT for hip fractures patients represents one example of success in England in terms of reimbursement and quality improvement. Other clinical entities include lower limb complex trauma, major trauma (polytrauma patients) and patients with pelvic and acetabulum reconstruction.

## References

- 1. http://www.nhfd.co.uk
- 2. Giannoulis D, Calori GM, Giannoudis PV. Thirty-day mortality after hip fractures: has anything changed? Eur J Orthop Surg Traumatol. 2016 May;26(4):365-70.