



Cardiac Rehabilitation: Costing Tool Guidance

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Costing Tool Guidance

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Introduction

The costing tool has two key functions:

- **Pathway costing** – This section of the model provides a means with which to calculate the total cost for the cardiac rehabilitation pathway on a per-patient basis. This will help to determine the affordability of local cardiac rehabilitation requirements and enable the value-for-money evaluation of providers' quotes.
- **Cost-benefit analysis** – The model also enables cost-benefit analysis of implementing a cardiac rehabilitation programme, and this can be used in the business case.

The Hospital Episode Statistics (HES) data analysis used in the costing tool is currently at primary care trust (PCT) level. The costing model and the data analysis will be updated to reflect the future commissioning architecture.

The costing tool includes a full list of assumptions in both the pathway costing and the cost-benefit analysis sections to highlight the key drivers for the calculations.

The costing tool is currently based on the assumption that the cardiac rehabilitation service is centre-based. If the mode of provision is based on another delivery model, such as a home-based model, or based only on the heart manual, commissioners will need to revisit component costs. Evidence indicates that home-based cardiac rehabilitation is no cheaper than centre-based options.¹

1. Pathway Costing

This section sets out the process that commissioners should follow in determining the cost of implementing a cardiac rehabilitation programme. The purpose of the model is to enable commissioners to determine the affordability of local cardiac rehabilitation requirements and enable the value-for-money evaluation of providers' price quotes.

The indicative per-patient cost of £477 calculated in the costing model covers staff costs only and is based on a series of assumptions that are embedded within the costing model; additional commissioner costs and set-up costs must be entered locally. This model has been completed using the clinical specification in the commissioning pack and provides example minutes for each step of the pathway by clinical staff specialism. The example values have been populated based on the consensus view of the reference group and input from sample providers. They are provided as a guide and should be modified to reflect the services discussed with providers and to suit local circumstances.

1 Taylor R S, Dalal H, Jolly K, Moxham T and Zawada A (2010) Home-based versus centre-based cardiac rehabilitation. *Cochrane Database Syst Rev* 20(1): CD007130

Commissioners need to understand that the staff cost per patient will be similar to the indicative cost in the model only if their actual local circumstances and cardiac rehabilitation specifications match the assumptions in the model. If local circumstances and specification requirements differ to any degree, then the staff cost per patient will be different.

The costing model represents the activities required to run a generic cardiac rehabilitation programme supporting low to medium-risk patients. Any variation on patient requirements, such as those falling within a high-risk category (e.g. heart failure patients), must be considered separately. The cardiac rehabilitation programme must be designed in agreement with the providers so that patients' specific needs are adequately met.

Key principles that must be adhered to in implementing the cardiac rehabilitation commissioning pack are as follows:

- **Payment currency** – The payment will be due only on patients completing the full cardiac rehabilitation pathway.
- **Payment trigger** – Costs assume that payment will be on completion of the pathway, and require an explicit attrition rate to be agreed between the commissioners and service providers, as this could have contract management implications.
- **Pathway divisibility** – The cardiac rehabilitation service elements are defined in the model. The commissioners, in agreement with their providers, can modify individual service elements.
- **Pathway status** – The costs assume contracting for cardiac rehabilitation to be on a completed pathway basis. The indicative costs are not mandatory but are evidence based using expected inputs.
- **Pathway variations** – The costing is based on specific staff bands, to meet British Association of Cardiac Rehabilitation (BACR) minimum standards. The providers may have different costs for individual elements but still work within the overall pathway costs.
- **Geographical costing differences** – The calculated costs are for England and exclude any regional variations; these need to be considered locally, as do other assumptions detailed here. In implementing this cardiac rehabilitation pathway, commissioners may incur additional specific local costs or initial set-up costs, which they must include in their pathway costing, and business case exercises. Commissioners will also need to input these additional costs into the costing model to calculate the full cost reflecting local needs and conditions.

The following data sources were used in creating the costing model:

- HES, The Information Centre for Health and Social Care
- BACR, *Standards and Core Components for Cardiac Rehabilitation* (2007)
- Personal Social Services Research Unit
- *NHS Staff Earnings Estimates January 2010*, The Information Centre for Health and Social Care.

The costing model includes instructions on how to navigate and complete it for local costing purposes. The main worksheet tabs to be completed for costing are as follows:

1. **Staff costing** – This tab includes a series of tables that will ultimately calculate the per-minute cost of each of the range of professions that may be required to deliver a cardiac rehabilitation service. Commissioners should review and amend to suit local circumstances the sections headed: a) Staffing allocation; b) Staff assumptions; and c) Minutes calculation.
2. **Minute calculator** – Commissioners are required to enter their assumptions and activity inputs showing how the cardiac rehabilitation service will be delivered. The model is completed with indicative assumptions and activities, which the commissioners must amend as appropriate to reflect local needs.
3. **Summary costing** – The costing model is set up to calculate the staff costs only. All other commissioner-specific and initial set-up costs need to be completed by the commissioners in the 'Summary costing' tab. Example cost types are listed in this tab, but commissioners are advised to amend or input their cost categories as appropriate.

2. Cost–benefit Analysis

The cost–benefit analysis compares the total current costs of acute admission and current cardiac rehabilitation costs with the total potential costs after implementing the proposed cardiac rehabilitation commissioning pack, thus demonstrating the potential financial impact. The anticipated re-admission reductions are the key drivers in this cost–benefit analysis.

The re-admission analysis and average cost of acute admissions have been derived from:

- 2008/9 HES data
- 2010/11 tariff prices
- 2007/8 reference cost activities.

The source data will be updated as more up-to-date data become available.

When using the cost–benefit section of the tool, commissioners should complete entries for the following assumptions to reflect their local circumstances:

1. **Selecting your PCT** – Commissioners should select their PCT in the 'Cost benefit input' tab, or create a PCT consortium. This can be done by clicking on the pull-down list. This will drive the calculations for PCT patient population numbers, which in turn will drive much of the cost–benefit calculations and the charts in the model. Where commissioners have chosen to work within a PCT consortium, they can then choose the PCTs to include in the consortium by following the instructions in the 'PCT consortium' tab.
2. **Selecting national or strategic health authority (SHA) view** – By choosing either a national or an SHA view, commissioners will be able to compare their position against either national or SHA averages.
3. **Current cost of cardiac rehabilitation** – If a cardiac rehabilitation programme exists, the current costs of running the programme need to be entered in the model. For demonstration purposes only, the model assumes £50,000 per year per PCT. This must be changed to reflect the actual local cost.
4. **Estimated percentage of patient take-up** – Commissioners must input the percentage of in-scope patients it is assumed would take part in the cardiac rehabilitation services. For demonstration purposes only, 50% of patients diagnosed as in-scope are assumed to take part in cardiac rehabilitation in the future. Commissioners must input their assumed percentage into the model.
5. **Target acute re-admissions** – Commissioners must input what they wish their target re-admission level to be as a result of implementing the cardiac rehabilitation programme. The entry must be the target re-admission rates, not the percentage reduction. For example, if the existing re-admission rate for the in-scope cohort of patients is 25%, and the goal is to reduce this to 15%, then 15% must be entered into the appropriate cell in the model. For demonstration purposes only, the target re-admission rate is assumed to be 15%. This must be changed to reflect commissioner goals.

