



Benchmarking and hospital pharmacy

If benchmarking is regarded as a worthwhile exercise to improve performance, why isn't more happening in benchmarking pharmacy and medicine management in hospitals?

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Benchmarking has been defined as a technique in which an organisation measures its performance against that of 'best in class' organisations, determines how those organisations achieve the levels they do, and uses the information to improve its own performance.

Hospital pharmacy benchmarking activity internationally seems to occur in three forms, these being the comparison of a hospital pharmacy service:

- against best practice standards, as a way of identifying gaps and guiding service development;
- against peers, in order to understand how the performance of a pharmacy department compares with contemporary practices of a similar size or service profile; and
- against itself, as a way of measuring a pharmacy's own performance over time to track improvement or monitor outcomes of service changes or initiatives.

Best practice standards

The most common form of benchmarking activity occurring in hospital pharmacy appears to be comparison against best practice standards, such as those developed by professional bodies including:

- The Society of Hospital Pharmacists of Australia (SHPA) which has published standards of practice for specific aspects of hospital pharmacy service;
- The Royal Pharmaceutical Society (RPS) in

Great Britain which recently developed the *Professional Standards for Hospital Pharmacy Practice, Optimising patient outcomes from medicines*; and

- The Health Systems Pharmacy Executive Alliance in the USA which developed the *High Performance Pharmacy Framework*.

Of the 'best practice' standards identified in the literature, the High Performance Pharmacy framework (which was described in the Pharmacy Focus section of the February 2014 edition of Private Hospital) is the only one to include financial performance as a key area.

Peer comparison

Very little information is available on benchmarking of pharmacy services against peers in Australia or internationally the most notable exception being the *Hospital Pharmacy in Canada 2011/2012 Report* which is the report of a comprehensive survey of 176 hospitals representing approximately 68,450 inpatient beds in Canada. It provides the opportunity for individual services to compare themselves with others across the country. The information presented includes data on clinical pharmacy services, drug distribution systems, human resources, pharmacy technicians, evaluating pharmacy services as well as specific benchmarking indicators.

Efforts to establish hospital pharmacy benchmarking activity in Australia via the Health Roundtable forum have largely been unsuccessful although there is renewed interest

among some public hospital CEOs and directors of pharmacy in Queensland, Victoria and South Australia. The biggest issue in progressing benchmarking in both private and public hospital services appears to be the lack of agreement on definitions for pharmacy services and activities.

Despite this, there have been a number of attempts to identify meaningful ways to affect comparisons using a benchmarking approach. In private hospitals these have included measuring and comparing elements such as:

- total pharmacy revenue per patient day;
- total pharmacy employment cost per patient day;
- operating theatre imprest cost per theatre procedure;
- total operating costs incl. depreciation as a percentage of pharmacy revenue;
- pharmacy stock variation (caused by stock write-off due to expiry or adjustments) in absolute value of write-off and as percentage of total stock purchases;
- gross profit margin on total pharmacy revenue;
- PBS revenue as a percentage of total pharmacy revenue;
- total imprest costs as a percentage of total purchases; and
- PBS prescriptions as a percentage of total prescriptions dispensed.

As the positive impact of the National Safety and Quality Health Service Standards is increasingly felt throughout Australia, some hospitals have begun reporting on and comparing key aspects of Standard 4 (medication safety) such as:

- the percentage of patients receiving a pharmacy review during their inpatient stay;
- the percentage of patients with a documented medication history and medication reconciliation; and
- percentage of patients on discharge with a complete discharge medication record.

A small number of public hospitals have been developing some basic benchmarking criteria by comparing costs and activity per National Weighted Activity Unit (NWAU), in the following ways:

- number of pharmacists and number of pharmacy support staff per 10,000 NWAU;
- inpatient and discharge items dispensed per NWAU;
- total drug expenditure per NWAU; and
- total PBS revenue per NWAU.

There are a number of measures of performance in medicines distribution from relevant SHPA and Royal Pharmaceutical Society practice standards and from Canadian



benchmarking activity and include the following:

- average drug cost per acute (and non-acute) patient day;
- turnaround times for inpatient and outpatient prescriptions;
- incidence of omitted medications due to unavailability;
- percentage of prescriptions prepared by support personnel.

Next steps for benchmarking

The following are suggested as next steps to consider in progressing meaningful benchmarking for hospital pharmacy:

- decide on the aspects of pharmacy where most insight is required (e.g. financial, clinical, operational) and which most closely align to hospital objectives;
- decide on the outcomes which need to be measured e.g. costs & revenue per patient day or unit of activity, Standard 4 criteria as a surrogate for safety and quality outcomes for patients;
- define the benchmarking elements precisely to ensure that 'like is being compared with like' (this is an arduous but essential task);
- decide on the hospitals with which comparison would be of most value (the 'best of breed');
- consider using an independent facilitator for the process to ensure confidentiality, accuracy and consistency; and make a start! [PH](#)