Objective

The objective of this research was to identify common sources of data for healthcare resource use (HRU) estimation and to assess their strengths and weaknesses.

Methods

A targeted search of the MEDLINE database, databases for economic evaluations, and health technology assessment websites was conducted to identify articles reporting on sources of data for HRU estimation.

Results

Nine articles were included from the MEDLINE search and 11 from backward chaining. No additional articles were found via other searches.

HRU data sources

Key sources of HRU data included the following:

- Patient-reported data: surveys, diaries
- Clinician-reported data: case report forms (CRFs), patient health records, expert opinion
- Secondary datasets: organized health record databases, medico-administrative databases (reimbursement, insurance claims).

Discussion & Conclusions

There is no gold-standard approach to HRU estimation; each data source has its own characteristics, strengths, and limitations. Indeed, we believe it unhelpful to attempt to define a single optimum approach, as different HRU analyser approaches will have correspondingly individual requirements.

Strengths and weaknesses of HRU data sources

Patient-reported data permit efficient collection and analysis. Surveys can be tailored to capture a broad range of HRU, including social care and care paid out of pocket. Limitations include patient burden, risks of low data quality, technical detail, and completeness, and a lack of standardized, validated surveys.

Clinician-reported data are considered higher quality, but the range of information included and output format may not be optimal for costing analysis. Clinician burden and arranging data access for research can also present hurdles.

A strength of secondary datasets is the availability of preexisting organized data, of known accuracy and reliability, with no incremental burden for data collection. However, as with clinician-reported data, secondary datasets may capture a narrow range of HRU, and specific measures and data formats may not be optimal. Access can be costly and time-consuming to negotiate, and it may be challenging to identify the specific patient populations of interest within the constraints of a retrospective database.

Figure 2 provides a summary of the strengths and weaknesses of each data source.

References

References available upon request.