Using HIPE data for Research and Audit: Critical Factors for Success

Abstract:

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Introduction

The Hospital Inpatient Enquiry is funded by the HSE and collects information on day and inpatient discharges from the acute public hospital system in Ireland. The Health Research & Information Division at the ESRI manages the HIPE system on behalf of the HSE. As data from the HIPE system are increasingly being used for a wide range of applications, audits of HIPE data by clinical teams is also increasing. This is a very positive development as greater involvement by clinicians in validating clinical data reported to national information systems is to be welcomed.

While there are increasingly important research papers published using HIPE data, problems have been identified with a number of studies undertaken to audit HIPE data. With the aim of ensuring that such data audits are appropriately conducted, a number of factors which would be considered essential to validly checking the data. As the person currently responsible for managing this system, I can readily acknowledge that the task of ensuring that an annual database of over 1.4m records achieves the standards aspired to in terms of quality, validity and timeliness is an ongoing challenge. Where problems and deficiencies are identified, the HIPE team at local and national level are committed to making the necessary changes to ensure that the system and the data are improved. Where auditing of HIPE is undertaken, a HIPE data audit is flawed if the first question we are faced with the problem that it may not be clear if the findings are a true reflection of data quality or emerge because of problems arising in the study. Deficiencies in papers published by O’Callaghan et al and Udoh et al have prompted us to outline here a number of considerations we consider essential to ensuring that the problems evident in these papers are avoided in future such initiatives.


5. The Economic Social Research Institute. www.HIPE.ie


Liaise with clinical coders

Clinical coders are a vital and specialised undertaking which requires dedicated training. Without appropriate training, clinicians would not be expected to have coding level expertise for the ICD-10-AM/ACHI/ACS® code which is currently used to code diagnoses and procedures in the HIPE system. Where the focus of an audit is on the accuracy of clinical coding, at the very least collaboration with an expert in the area is strongly advised. Where this happens, the studies benefit from access to this expertise, as is the case with the paper by Clarke et al. Ensuring that appropriate clinical coders are engaged is important as O’Callaghan et al, chose not to report on the fact that the data collected were not correctly coded. The fact that this information is not available in the paper greatly diminishes the potential value of the paper.

Check and report the facts

Where sources of any problems identified with the HIPE or any other system have been identified, it is important that the actions and the holding of an extensive and comprehensive understanding of all the relevant issues. Where parallel data collection/coding processes are being compared, it is essential that the process in place for collecting and coding HIPE data is understood and correctly reported. Udoh et al illustrates where failure to adhere to this guidance becomes problematic. These authors did a survey of how diagnoses assigned to psychiatric patients by 3 psychiatrists and the HIPE team. The psychiatrists were required by the study to use ICD-10 codes for indexing of procedures when such do not exist. The fact that this information is not available so that the reader has a comprehensive understanding of why a problem occurred and the reason why the problem they reported occurred greatly diminished the educational value of that paper. Where sources of any problems identified with the HIPE or any other system have been identified, it is important that the actions and people working within the system can learn how to improve it. The fact that O’Callaghan et al., chose not to report on the reason why the problem they reported occurred greatly diminished the educational value of that paper. For the period of study for the O’Callaghan et al paper (2005/2006), there had been an overreliance on a theatre booking system to report procedures to HIPE in one hospital. The theatre booking system did not facilitate changing the status of operations which were cancelled or deferred with the result that there was duplication in the reporting of procedures performed to HIPE in some instances.

Sole reliance on the theatre booking system for reporting to HIPE was in contravention of the national coding guidelines which state that The clinical record should be the primary source for the coding of inpatient morbidity and any additional information source being used must be verified prior to being reported to HIPE. The problem arising with use of the theatre booking system for reporting to HIPE was identified by the Hospital in 2006 and the ESRI team reported this information to the authors in February 2011, the reasons for the duplicate reporting and the fact that the problem had been addressed (in 2006), it is very regrettable that the study performed to HIPE in some instances.

Greater use of HIPE data for research and other purposes is to be welcomed. Those charged with responsibility for the data set at the ESRI are keen to support such initiatives and welcome requests for data and/or supplementary information. While HIPE are embarking on studies using HIPE data we need that the suggestions in this paper as to factors to note will be helpful in ensuring that the results will be valid, of high quality and help to inform future policy development in relation to service provision and system development.

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4. www.HIPE.ie

5. International Classifications of Diseases, 10th Revision, Australian Modification/ Australian Classification of