The importance of clinical documentation improvement for Australian hospitals

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Introduction

When clinical documentation improvement (CDI) was first introduced in the United States (US), it emerged within the policy climate of the Bush administration, with a major focus on increasing the effectiveness of hospital care and reducing the cost of the healthcare system. The Deficit Reduction Act 2005 was a combination of withholding reimbursement (for hospital acquired conditions), assigning mandatory indicators (Present on Admission flags), and incentivising best practice (through value-based purchasing) (Wilson, 2009). In order to achieve the requirements of the legislation, CDI programs in the US focused on improving the clinical documentation in the medical records so that resultant coded data submitted to internal and external agencies were as complete and accurate as possible, so as to manage the direct impact on reimbursement (Wilson, 2009).

The Australian clinical coding climate

While there are not the same environmental conditions in Australia as the US, the two countries share the timeless issues of making the provision of health care more efficient and cost-effective, while improving patient outcomes. In the 1990s, public hospitals in Victoria moved from historically based block funding to activity-based funding, where reimbursement was based on the complexity of patients treated. In July 2012 a national activity-based funding model was introduced and those states not already operating activity-based funding models adopted the national model for their own purposes. The motivation to do this was to improve the link between hospital funding and the provision of service (Independent Hospital Pricing Authority [IHPA], 2011). In early 2017, the IHPA announced its upcoming pricing framework to focus on quality and patient safety by reducing funding for ‘unsafe care’. Pricing outcomes were to be directed toward three main areas: sentinel events; hospital acquired complications (HACs); and preventable readmissions (IHPA, 2017). With this trend towards increasing accountability placed on hospitals, there was pressure for clinical documentation to be as accurate as possible since it has significant ramifications for patient care, casemix data reporting, and funding.

What is CDI?

Hospital coded data are one of the building blocks of reporting for both public and private hospitals in Australia. These data are the result of a two-step process. Firstly, clinical documentation is generated by clinicians in the medical record. This documentation is then clinically coded or classified using the International Classification of Diseases (ICD-10-AM) and the Australian Classification of Health Interventions (ACHI) codes, which are then further classified into Diagnosis Related Groups (DRGs) to produce hospital casemix data. Unfortunately, the language used for clinical purposes, and that required by Clinical Coders (CCs) is often different. Clinicians frequently use generalised clinical terms, signs and symbols, and abbreviations. While this is meaningful for communication between treating healthcare professionals for managing patients, these terms are not always able to be translated into ICD-10-AM/ACHI codes or coded to the required specificity that reflects the complexity of the patient. This disconnect can significantly affect the quality of hospital casemix data. For many hospitals, the results of clinical coding do not fully capture the activity and level of service that was provided, resulting in an under-representation of patient complexity leading to sub-optimal hospital reimbursement and incomplete reporting to external agencies. CDI is the process of reducing the ‘disconnect’ between what clinicians write in the medical record and what CCs need to produce quality casemix data. It achieves this by placing a CDI specialist or clinical documentation specialist (CDS) on the ward to review clinical documentation in a timely manner while the patient is still admitted. CDI specialists help clinicians to document using a format that is clear, complete, and accurate, to aid with patient management and also to be readily acceptable for clinical coding (Buttner et al. 2014; Lo 2014).
A case for CDI in Australia

CDI is becoming an important strategic trend among hospitals in Australia due to its positive impact on clinical, financial, and epidemiological outcomes. This section discusses these three areas and summarises the Australian literature associated with each topic.

Communication and patient safety

The Australian Commission on Safety and Quality in Health Care (ACSQHC) has recognised the importance of the relationship between effective communication and patient safety, with evidence showing poor documentation can lead to adverse events. The Commission stated that documentation at the time of transition of care for patients with complex health care needs was a key safety and quality issue. Patient handover was the step associated with high negative risks and poor outcomes. The report noted that poor documentation often resulted from missing or miscommunicated information. Inconsistent use of abbreviations or standard terminology could also affect how the information was interpreted, leading to consequences such as higher readmission rates, lack of follow-up after discharge, increased costs, and medication errors (ACSQHC, 2017a;b).

Roughhead and Semple (2009a, 2009b) conducted an extensive literature review to assess the extent of medication errors in Australia and the preventability of these errors. Their findings showed that medication errors represented an estimated cost of AUD$660 million to the Australian health care system. Australian researchers, Lamb and Henry (2004), investigated paediatric use of paracetamol to better understand prescribing practice. Out of 313 children, 231 (74%) were prescribed paracetamol during the study period. These researchers found that poor documentation between doctors and nurses commonly resulted in misunderstanding of the condition being treated and indication for use.

In 2012, the ACSQHC released the first edition of the National Safety and Quality Health Service (NSQHS) Standards to drive the implementation of safety and quality systems in Australia (ACSQHC 2012, 2017a). In 2011, the state health ministers had endorsed the NSQHS and a national accreditation scheme for health service organisations, and in 2017, the ACSQHC published the second edition of eight NSQHS standards (ACSQHC 2017a). The Clinical Handover Standard became the Communicating for Safety Standard, to broaden the Standard beyond clinical handover and to reflect the importance of effective communication throughout the entire delivery of health care. As Devkaran and O’Farrell (2014) pointed out, implementation and proof of compliance to Standards during accreditation processes are dependent on quality clinical documentation.

The ACSQHC (2015) also introduced the national care, hospital-based outcome indicators for ongoing monitoring and review by hospitals. The rationale was that any significant variance can be a signal for issues such as data quality and consistency, resources, or quality of care. These indicators reflected: hospital standardised mortality ratios; death in low-mortality DRGs; and unplanned or unexpected hospital readmissions for: (i) acute myocardial infarction (AMI); (ii) stroke; (iii) fractured neck of femur; and (iv) pneumonia. A CDI program would naturally evolve to consider more quality improvement measures. The two are intertwined and improving documentation inadvertently impacts on its quality. In regard to outcome indicators, a death in a low mortality DRG can only be accurately interpreted if the DRG is correct, which is wholly dependent on accurate documentation and coding.

Implementation of an effective CDI program by a range of competent, trained personnel can be a powerful tool, the impact of which is, by its very nature, far reaching. Moje, Jackson and McNair (2006: 333) argued that “the usefulness of abstracted data for quality and safety purposes relies on good documentation in the medical record, thorough coding and periodic data audit”. From the literature and recent reports by the ACSQHC (2017a; b), there is little doubt that improving the quality of the clinical documentation in the medical record is a current area of focus and forms one of the strategies used to address the issue of patient safety and quality outcomes.

Hospital reimbursement and funding

The ACSQHC’s (2017b) report summarised a table of minimum information content that should be documented for all complex patient types. Within this table very clear reference was made to documenting the principal diagnosis along with a clinical synopsis and relevant tests and investigations supporting that decision. Quality documentation should reflect evidence-based treatment plans, which can be linked...
directly to the correct principal diagnosis and additional diagnoses. This then ensures accurate hospital coded data are abstracted and reported by CCs. Clinical coding gathers other information in the documentation, such as procedures and additional diagnoses to develop a picture of the patient’s admission and subsequently the allocation of DRGs (ACSQHC 2017b).

Cheng et al (2009) investigated the ramifications of poor quality documentation on hospital funding in a major teaching hospital in Melbourne. From a 6-month period during 2004 to 2005 a sample of 752 coded inpatient cases from a surgical unit were audited for accuracy of the clinical coding. Of the total sample, 118 cases (15.7%) had a DRG change. Upon review, 57% of this subset was due to missing documentation of diagnostic information. The financial impact of the inaccurate hospital data from this study was significant and equated to a hospital shortfall in revenue of AUD$575,290 for this single unit over the 6-month period.

Cheng et al. (2009: 43) concluded that “continuous improvement in the quality of the coding and DRG data outputs” and “routine and systematic internal clinical coding audits” are necessary. Their recommendations focused heavily on the role of CCs. While Cheng et al’s recommendations are still applicable, clinical documentation improvement focuses on leveraging the role of a CDI specialist to increase the quality of the information provided to the clinical coder, ensuring the documentation in the medical record is complete, comprehensive, and legible before the patient is even discharged. The quality of clinical documentation in the medical record directly impacts clinical coding. Since clinical coding provides the building blocks for hospital data (which determine funding), the adoption of CDI initiatives in Australian hospitals is a legitimate strategy that can be applied to secure appropriate funding.

**Surveillance and burden of disease reporting**

From a disease standpoint, research conducted by Professor Peter Collignon’s group (Das et al. 2016) studied Staphylococcus aureus bacteraemia surveillance accuracy by comparing the number of laboratory-confirmed episodes to the number of clinically coded episodes. From the 740 laboratory-confirmed episodes, only 408 were reflected in the coded data, representing only 55% (95% CI) of the total. This inaccuracy was most likely due to documentation issues by the medical practitioner (missing, inaccurate, or inconsistent data) or misinterpretation of the documentation by the CCs. Das et al. went on to discuss the negative consequences resulting from poor clinical documentation, namely, any inaccurate burden of disease reflected in the coded data leads to sub-standard funding, impacts policy decisions, raises issues with tracking performance, and compromises trend data for national and international surveillance. This study highlighted the opportunity for improvement in the clinical documentation.

Mitchell and Ferguson (2016: 32-35) pointed out that when the population being assessed is large in size and being observed over a long time period, using coded data has the advantage of being potentially more efficient for surveillance. To evaluate whether coded data were reliable for the surveillance of healthcare-associated urinary tract infections (HAUTI), Mitchell et al. reviewed 162,503 admissions from eight hospitals in one health district in New South Wales. Over the study period, 2,821 patients acquired a HAUTI. However, only 29.3% of laboratory-diagnosed HAUTI patients were assigned a UTI ICD-10-AM clinical code. In this study, had there been initiatives in place to improve the clinical documentation and resultant coded data it could have led to efficiencies for infection control surveillance, “a very time consuming and resource intensive process” (Mitchell and Ferguson, 2016: 35). Clinical coding occurs in every hospital in Australia. If the quality of hospital casemix data could be improved, the potential to increase the efficiency of surveillance and research toward quantifying the burden of disease would be greatly increased.

**Challenges to implementing CDI programs in Australia**

Implementation of a CDI program can deliver a wide range of advantages. However, because it requires behavioural change involving multiple stakeholders, it must be prioritised as a hospital-wide initiative. While many hospital staff are impacted by CDI programs, the major stakeholders are medical staff, CDI specialists, and Health Information Managers (HIMs) and CCs. Challenges to implementing a CDI program that impacts on stakeholder groups are discussed below.

**Classification and grouping**

Classification of diseases in Australian hospitals is aligned globally through the use of the World Health Organization International Statistical Classification of
Diseases and Related Health Problems, 10th Revision, modified for use for Australian clinical practice (ACCD, ICD-10-AM 10th edition). Along with ACHI codes, the ICD-10-AM codes are the building blocks for classifying patients to DRGs.

The classification process is complex and requires the CC to follow conventions contained within the classification, as well as ensuring compliance with Australian Coding Standards (ACS) and officially published national and state coding authority advice. While this ensures that casemix data are of a consistent quality, it also presents a challenge to those in the clinical coding profession. Changes to the base classification are also made biennially, presenting difficulties for a CDI program to maintain currency. Therefore, Cheng et al. (2009) suggested that CCs are best placed to deal with the complexities of the classification and advise on the necessary revisions.

Moving from a retrospective to concurrent approach

For many decades, HIMs and CCs have performed a vital role in reviewing the documentation and generating queries back to the treating clinician to clarify any concerns with the documentation. From a timing perspective, these queries are generated retrospectively, after the patient has been discharged. Aside from delaying the coding process, these queries will always have been negatively affected by the passing of time. With CDI, the objective is to improve the documentation concurrently, while the patient is still admitted (Chavis, 2009). Due to the complexity of the classification, grouping, and reporting requirements in Australia, as discussed, HIMs and CCs play an important role in guiding CDI specialists on the documentation required for casemix funding. When hospitals embark on their CDI journey, there may be a temptation to have the CDI specialist review medical records post-discharge. The challenge will be to leave the past behind and start working in the ‘here and now’ to improve the documentation going forward. This will take discipline, focus, and hospital-wide commitment.

Doctor and clinician engagement

The success of CDI programs relies on the ability to engage clinicians. Doctors are typically time-poor and may require motivation to sustain their involvement in CDI over the long term (Leventhal 2014). Much of the literature on implementing CDI has stressed the importance of education as a means of increasing clinician engagement. To date in Australia, there has been no formal training on clinical documentation within the syllabus of medical courses at a tertiary level. As a result, doctors may not fully understand that their documentation has many uses that extend well beyond patient care. CDI education could facilitate doctors’ appreciation of why and how their documentation affects patient outcomes, reimbursement, casemix index, resource planning, decision making, clinical indicators, and benchmarking, just to name a few. When clinicians are better informed and realise the impact of changing the way they provide documentation, they are more likely to respond to CDI specialists and HIM and clinical coder queries. Towers (2013) suggested that the message to engage clinicians could be as simple as just informing them that CDI is a quality initiative.

Patient complexity can also be used as an important driver to gain a doctor’s, other clinician’s, or a department’s commitment to CDI. If there is a perceived gap between the complexity of the patient’s treatment and what the casemix data reflect, then CDI could become the motivation to gain a doctor’s commitment to change the way the medical record is completed. Whatever the objective of adopting a CDI program, careful consideration needs to be given to clinician motivations for engagement as this is key to the success of the program. Each hospital has its own unique culture, resources, processes, and priorities and these factors all need to be taken into consideration to bring about the required change.

Recommendations for hospitals

CDI is an important strategy that deserves increased consideration by hospital leadership. In a climate of increasing quality, patient safety, and reimbursement pressures, CDI programs aim to deliver more accurate data to help achieve operational, quality, and financial imperatives. CDI specialists, HIMs and CCs can all play an instrumental and important role in nurturing clinician engagement by providing continuous education on how and what to include in the documentation. In addition, concurrently reviewing the documentation for improvement ensures the medical record is complete, accurate, clear and appropriate for patient handover and clinical coding.
Understanding how the information in the medical record is consumed both inside and outside an organisation highlights the fact that CDI reduces hospital risk on many levels and also delivers multiple benefits that cannot easily be ignored. There is no doubt that the agenda to improve clinical documentation is one with a time-honoured vision. If CDI ensures quality data for better reporting, reimbursement, research, and provision of quality service, it should be every hospital's foremost priority.

References

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References (continued)


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