The Importance of Clinical Documentation Improvement for Australian Hospitals

Abstract

Clinical Documentation Improvement (CDI) is a recent initiative gaining increased momentum in Australia. The benefits surrounding its success internationally include improved quality and patient safety outcomes and increased reimbursement. The premise of CDI is simple; engage clinicians to improve the clinical documentation in the medical record in 'real time' so that it is fit for reporting, analysis and reimbursement. Every country has differing health care systems and this paper validates the relevancy of CDI for the Australian health care environment.

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3M Health Information Systems has been partnering with hospitals in Australia and New Zealand for over 30 years. 3M has extensive experience in conducting CDI specialist comprehensive training, site-based coaching, clinician CDI education and CDI baseline measurement record reviews for public and private hospitals in Australia. 3M has a long proven heritage in the health information management industry and is passionate about providing quality software and services which aim to improve the quality of hospital and casemix data.

Introduction

When Clinical Documentation Improvement (CDI) made an introduction in the U.S. it emerged in a climate under the Bush administration in an effort to increase the effectiveness of hospital care and reduce the cost of the U.S. health care system. The Deficit Reduction Act of 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 U.S. focussed on improving the clinical documentation in the medical records, so that the coded data generated from the records and 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 climate

In Australia today, while there are not the same environmental conditions as the U.S., 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. The rest of Australia followed from July 2014. The motivation to do this was to improve the link between hospital funding and the provision of service [Independent Hospital Pricing Authority, 2011]. In early 2017 the Independent Hospital Pricing Authority (IHPA) announced its upcoming pricing framework to focus on quality and patient safety by reducing funding for 'unsafe care'. Pricing outcomes will be directed toward three main areas - sentinel events, hospital acquired complications (HACs) and preventable readmissions [Independent Hospital Pricing Authority, 2017].

With this trend of increasing accountability placed on hospitals, there is pressure for clinical documentation to be as accurate as possible since it has significant ramifications for patient care, casemix data reporting and funding.

So what is Clinical Documentation Improvement?

Hospital coded data is one of the building blocks to reporting for both public and private hospitals in Australia. This data is the result of a two-step process. Firstly, clinical documentation is generated by clinicians in the medical record. This documentation is then clinically coded into International Classification of Diseases (ICD-10-AM) and the Australian Classification of Health Intervention (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 is often different. Clinicians often 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 clinically coded ICD-10-AM/ACHI codes or 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 clinical coding results do not fully capture the activity and the level of service that was provided. The result is an under-representation of patient complexity leading to sub-optimal hospital reimbursement and incomplete reporting to external agencies.

Clinical Documentation Improvement (CDI) describes the process of reducing the disconnect between what clinicians write in the medical record and what clinical coders need for producing 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 to ensure it is in front of clinicians while the patient is still admitted. CDI specialists help clinicians document in a format which is clear, complete and accurate to aid with patient management and also 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.

• Patient Handover and Patient Safety

The evidence is mounting in Australia linking poor clinical documentation to patient safety and quality outcomes. The Australian Commission suggested that issues with clinical communication were a main factor contributing to 70% of hospital sentinel events. In May 2017, the Commission published a subsequent review on this topic suggesting that poor 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. The inconsistent use of abbreviations or standard terminology could additionally affect how the information was interpreted. This led to consequences which included higher readmission rates, lack of follow up after discharge, increased costs and medication errors [The Australian Commission on Safety and Quality in Health Care, 2017].

Medication errors represent an estimated cost of $660 million to the Australian health care system. Roughead and Semple [2009] conducted an extensive literature review to assess the extent of the issue in Australia and its preventability. An Australian study [Lamb and Henry, 2004] researched the paediatric use of paracetamol to better understand prescribing practice. Two hundred and thirty-one out of 313 children (74%) were prescribed paracetamol during the study period. It was found that there was poor documentation between doctors and nurses which commonly resulted in misunderstandings of the condition being treated and indication for use.

The Australian Commission has developed ten National Safety and Quality Health Care Standards (NSQHS) to drive the implementation of safety and quality systems in Australia. In 2011, Health Ministers endorsed the NSQHS and a national accreditation scheme for health service organisations. The implementation and proof of compliance to Standards during accreditation processes is dependent on quality clinical documentation [The Australian Commission on Safety and Quality in Health Care, 2012]. This is reinforced by Devkaran and O'Farrell [2015] who found "the accuracy of measures during accreditation is dependent on the quality of documentation in the patient record".

The Australian Commission also introduced the National core, hospital-based outcome indicators for ongoing monitoring and review by hospitals [The Australian Commission on Safety and Quality in Health Care, 2015]. The rationale is that any significant variance can be a signal for issues of either data quality and consistency, resources, or quality of care. These indicators reflect:

- Hospital standardised mortality ratios
- Death in low-mortality DRGs
- Unplanned/unexpected hospital readmissions for (i) acute myocardial infarction (AMI) (ii) stroke (iii) fractured neck of femur, and (iv) pneumonia

A CDI program will 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. That is wholly dependent on accurate documentation and coding.

Implementation of an effective CDI program by competent, trained clinicians can be a powerful tool whose impact is far reaching by its very nature. Moje et al. [2006] states, "the usefulness of abstracted data for quality and safety purposes relies on good documentation in the medical record". From the literature and recent reports by the Australian Commission, 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 Australian Commission's 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 and additional diagnoses. This then ensures accurate hospital coded data is extracted and reported by clinical coders. 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. [The Australian Commission on Safety and Quality in Health Care, 2017].

Cheng et al [2009] researched the ramifications of poor quality documentation on hospital funding in a major teaching hospital in Melbourne. Over a six month period, over 2004 to 2005, a sample of 752 coded inpatient cases from a surgical unit were audited. Of the total sample, one hundred and eighteen 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 $575,290 for this single unit over the six month period. The focus of the paper concluded the need for 'continuous improvement in the quality of the coding and DRG data outputs', and the need for 'routine and systematic internal clinical coding audits'. These recommendations focus heavily on the role of clinical coders. While this is still very 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 the clinical documentation in the medical record directly impacts clinical coding. Since clinical coding is providing the building blocks for hospital data on which funding is determined, the adoption of CDI initiatives in Australian hospitals is a legitimate strategy which 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 of these 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) or misinterpretation of the documentation by the clinical coders. Das et al goes on to discuss the negative consequences resulting from poor clinical documentation - 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.

The above study highlights the opportunity for improvement in the clinical documentation. Mitchell et al [2016] raises 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 was reliable for the surveillance of healthcare-associated urinary tract infections (HAUTI), Mitchell et al reviewed 162,503 admissions from eight NSW hospitals from one health district. Over the study period, 2821 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, if there were initiatives in place to improve the clinical documentation and resultant coded data it could lead to efficiencies for infection control surveillance, "a very time consuming and resource intensive process".

Clinical coding occurs in every hospital in Australia so if the quality of hospital casemix data was improved, it has the potential to increase the efficiency of surveillance and research toward quantifying the burden of disease.

The challenges to implementing CDI programs in Australia

The implementation of a CDI program delivers a wide range of advantages. Since it requires behavioural change involving multiple stakeholders, it must be prioritised as a hospital-wide initiative. The major stakeholders of CDI programs are clinicians, CDI specialists and Health Information Managers (HIMs)/clinical coders. Challenges to implementing a CDI program which impacts with these three groups are discussed below.

• Classification and Grouping

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

The classification process is a complex one which requires the clinical coder 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 is of a consistent quality, this also presents a challenge to those in the clinical coding profession to maintain currency with knowledge of the conventions, standards and advice. Changes to the classification are made biennially presenting challenges for a CDI program to maintain currency and Cheng et al [2009] suggest that clinical coders are best placed to deal with the complexities of the classification.

• Moving from a Retrospective to Concurrent Approach

For many decades, HIMs and clinical coders have been performing 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 is discharged. Aside from delaying the coding process, these queries will always be negatively affected by the passing of time.

With CDI, the objective is to improve the documentation concurrently, so while the patient is still admitted [Chavis, 2015]. Due to the complexity of the classification, grouping and reporting requirements in Australia as discussed in the previous point, HIMs and clinical coders play an important role in guiding CDI specialists on the documentation required for casemix funding. When hospitals embark on their CDI journey, there will always 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 many CDI programs relies on the ability to engage clinicians and doctors. Doctor are time-poor and require motivation to sustain their involvement in CDI over the long term [Leventhal, 2014].

Much of the literature stresses the importance of education as a means of increasing clinician engagement with CDI. Currently in Australia there is no formal training on clinical documentation within the syllabus of medical courses at a tertiary level. As a result, doctors do not understand that their documentation has many uses which extend well beyond patient care. CDI education helps doctors appreciate that what and how they document 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 document, they are more likely to respond to CDI specialists and HIM/coder queries. Towers [2013] suggests that the message to engage clinicians can 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 or department's commitment to CDI. If there is a perceived gap between how complex the patients' treatment was and what the casemix data reflects, then CDI can become the motivation to gain a doctor's commitment to change the way they write in the medical record.

Whatever the objective of adopting a CDI program, careful consideration needs to be given to clinician motivations for engagement. Each hospital has its own unique culture, resources, processes and priorities and these factors need to be taken into consideration to bring about the required change.

A final word to hospitals

Clinical Documentation Improvement (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. Both CDI specialists and HIMs/clinical coders play an instrumental 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 inside and outside an organisation, highlights that CDI reduces hospital risk on so many levels and delivers multiple benefits that cannot easily be ignored. There is no doubt that the agenda to improve clinical documentation is a time-honouring vision. If CDI means quality data for better reporting, reimbursement, research and provision of quality service, it should be every hospital's foremost priority.

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