How 3M™ Codefinder™ Software is adding value to hospitals

3M™ Codefinder™ Software is the industry's most sophisticated coding software tool used across the majority of hospitals in Australia and New Zealand. This software helps hundreds of hospitals ensure they deliver the highest quality coded data from each patient separation.

What makes Codefinder™ Software special?

The coding pathways within Codefinder™ make this solution unique and ensures the coding is complete, correct and compliant so nothing is missed and errors are minimised. Coders are presented with a sequence of screens or decision logic coding paths, which prompt them through the specificity required in order to assign the most specific and accurate code available. The coding rules and coding standards, including logic for national coding advice, is built into the coding pathways to further ensure accurate coding is achieved. These coding pathways have been refined and enhanced for over 20 years. With a strong focus on incorporating suggestions from coders, and with efficiency and accuracy as the key drivers for improvements to the coding pathways, the coding decision logic is therefore rich in content.

Codefinder™ also has real-time 'edits' that are presented to the coder to ensure that what is coded is compliant with standards and advice, and a key benefit in the coding software. These edits appear as short descriptions, and enable coders to fix coding errors or warnings prior to the information being sent to the Patient Administration System (PAS), rather than waiting for the errors to be identified in subsequent validations and/or coding audits.

Hospital Acquired Complications and Pricing for Safety

With the significant changes toward pricing for safety and value-based funding, 3M has made enhancements to Codefinder™ to help hospitals robustly capture, reflect and quantify the financial impact of Hospital Acquired Complications (HACs) in the clinically coded data. Codefinder™ has two main benefits that will help public hospitals as they adopt HAC pricing changes:

Flagging of HACs

As HIMs/Coders use Codefinder™, the codes which meet HAC criteria will be visually flagged and easily identifiable. This will help coders double check that a HAC event did arise during the episode of care and was a complication that was not present on admission. This feature will be effective in the mid 2018 release of Codefinder™.

HAC reimbursement calculations

The Independent Hospital Pricing Authority (IHPA) has gone to great lengths to determine the HAC reduction formula for reimbursement. It is a formula which takes into account various components to adjust for risk and other contributing factors. To save hospitals implementing the HAC funding formulas and algorithms in their own systems, Codefinder™ includes a major enhancement to incorporate HAC reimbursement formulas into the software so hospitals have immediate visibility of the funding implications of HAC related episodes. This feature will be effective in the August release of Codefinder™.

Research Results

With so many users in the region, 3M has invested in research to understand usage and attitudes towards Codefinder™ Software to understand the value it delivers and to also find ways to improve our solutions and service.

A total of 98 respondents participated in a recent survey. Respondents were asked to select the most valued Codefinder™ features.

DRG Options

72% of respondents rated 'DRG Options' as the most valued feature within Codefinder™ Software.

- The DRG Options feature allows coders to consider alternative principal diagnoses that are closely related and view their dollar impact on the DRG assignment so changes can be made prior to sending to the PAS
- If more than one diagnosis potentially meets the criteria for principal diagnosis in patients with multiple medical conditions, DRG Options enable the coder to compare the DRG, cost weight and reimbursement impact (public hospitals)

When coders were asked about how often they would use DRG Options, participants indicated they use this feature in 63% of the episodes they coded. DRG Options has the ability to improve the decision making of the coder by providing immediate visibility of information that would be otherwise time-consuming to obtain. Currently, there is no other coding tool on the market that allows coders to perform this analysis.
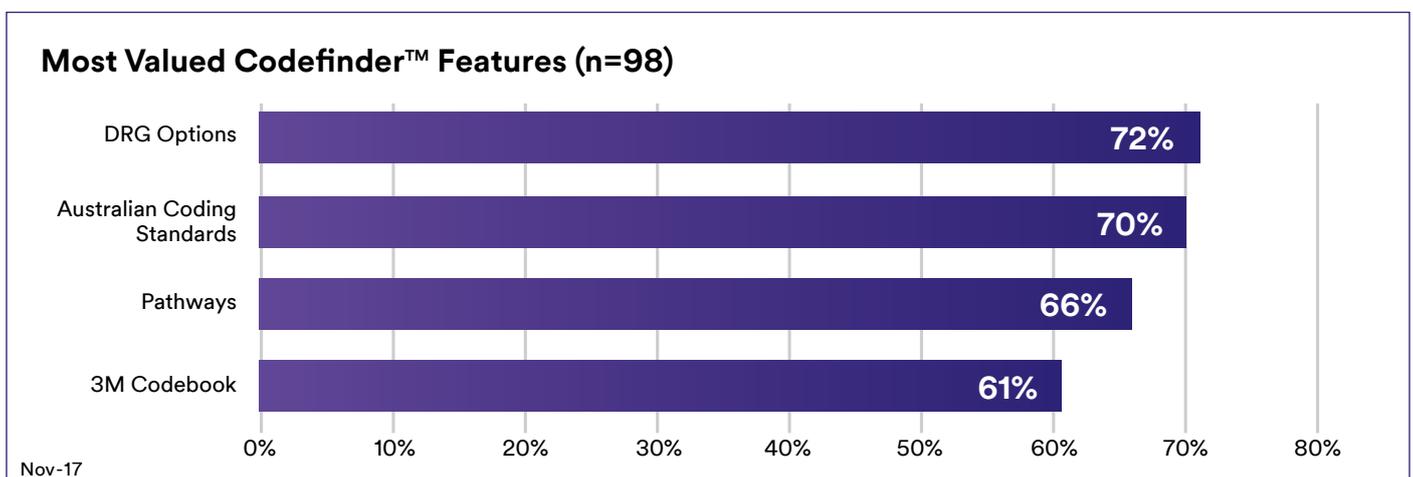
3M Codebook

61% of respondents rated 'Codebook' as the most valued feature within Codefinder™ Software.

3M™ Codebook™ is a comprehensive module that comes with every Codefinder™ license. It is the basis of the classification which provides the foundation for the pathways for Codefinder™. So instead of going back to the books or other types of reference tools for reassurance or further investigation, coders can validate by referring to 3M Codebook™ without having to purchase additional reference material or alternative software platforms.
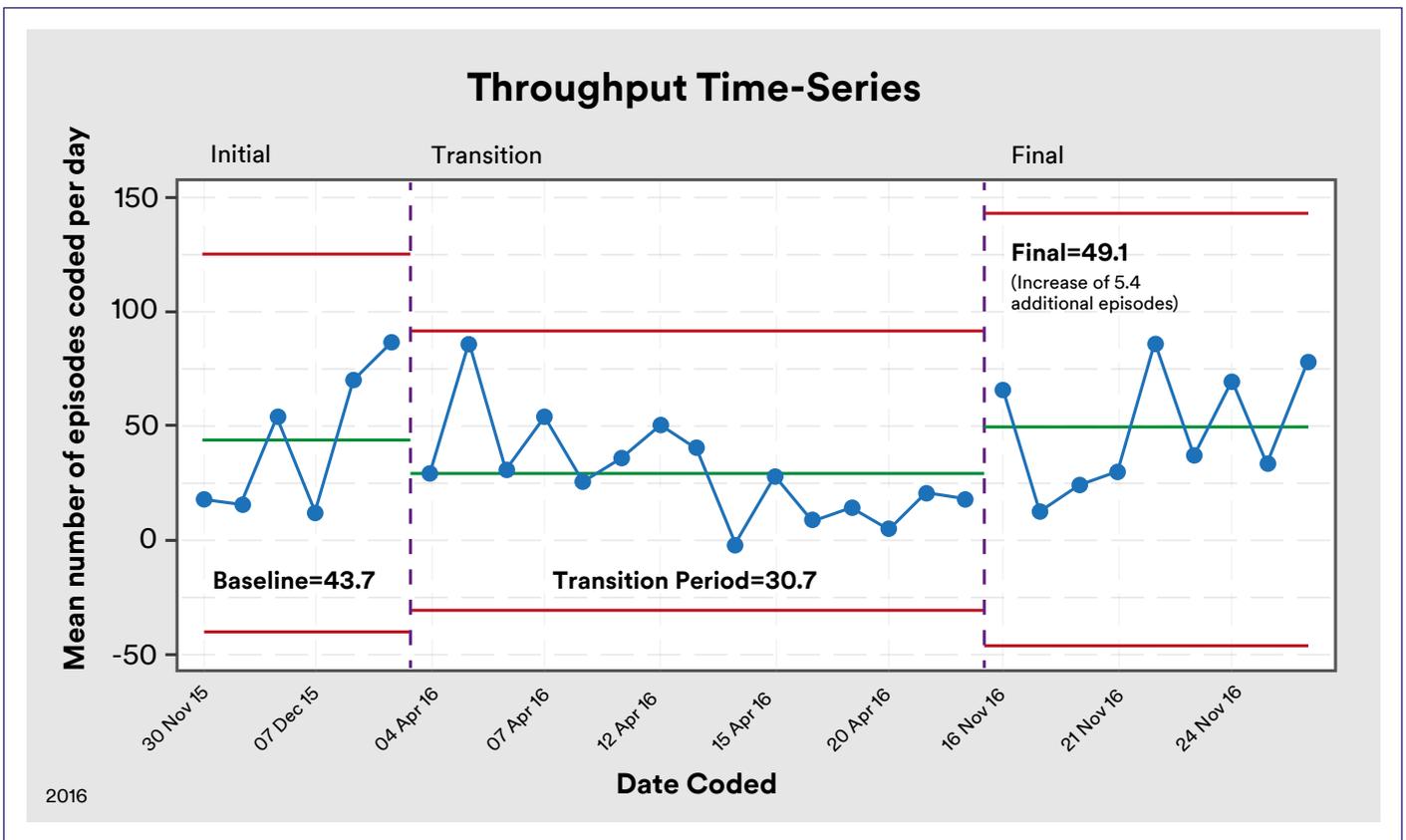
Productivity Gains

For customers who transition from using an electronic book to Codefinder™, study results demonstrate an increase of 19% in coding throughput.

- Initial - There was a baseline measurement of 43.7 episodes coded per day with their previous product.
- Transition - Coders moved from their previous product to Codefinder™. There was a drop in the mean number of episodes coded per day to 30.7. This is a typical occurrence as coders learn and familiarise themselves with a new system.
- Final - After using Codefinder™ for 7 months, there was a 12% increase in the number of episodes coded per day from 43.7 to 49.1.

Most Valued Codefinder™ Features (n=98)

Feature	Percentage
DRG Options	72%
Australian Coding Standards	70%
Pathways	66%
3M Codebook	61%

Nov-17

> **For customers who transition from using an electronic book to Codefinder™, study results demonstrate an increase of 19% in coding throughput.**

Throughput Time-Series

Mean number of episodes coded per day vs Date Coded

Initial — Transition — Final

Final=49.1
(Increase of 5.4 additional episodes)

Baseline=43.7

Transition Period=30.7

2016

During the study period, the mean daily number of coders decreased. To adjust for this, the number of episodes per coder was calculated. This increase from 24.3 to 28.9 episodes per coder represents the final calculation of 19% improvement in coding throughput.

Conclusion

Hospitals that use Codefinder™ Software can be confident that the state-of-the-art pathways, edits and other quality-driving features will support HIMs/Clinical Coders through this time of significant change and ensure that the clinically coded data hospital management collects, analyses and submits is of the highest quality.

Background to Pricing for Safety

In 2012, the Commonwealth Government moved from block funding to activity based funding in an effort to increase the link between hospital services actually performed, and reimbursement.

> **IHPA (The Independent Hospital Pricing Authority) is working to incorporate safety and quality into the pricing and funding of public hospital services in order to improve health outcomes, avoid funding unnecessary or unsafe care and decrease avoidable demand for public hospital services.**

IHPA has directed funding and pricing outcomes toward three key areas:

1. Sentinel events. From 2017, sentinel events no longer receive Commonwealth reimbursement.
2. Hospital Acquired Complications (HACs). 2017 was a shadow year with funding changes active from July 1, 2018.
3. Avoidable readmissions is still subject to consultation.

The HAC Pricing and funding for safety and quality risk adjustment model
Issue date: Version 3, March 2018

In relation to point 2 above, IHPA has developed a risk adjusted formula to apply to reimbursement associated with HACs. It takes into account the multiple data elements below. 3M has incorporated these complex HAC reimbursement formulas into the Codefinder™ Software.

HAC identification:

- The list of patient's ICD-10-AM codes, including diagnoses and condition onset flags
- DRG
- MDC
- Care type
- Admission mode
- Birth weight
- Admission and separation date

Calculation of HAC complexity group (risk adjustment) based on:

- Age
- Charlson score
- DRG
- MDC grouping
- Gender
- Emergency Admission
- ICU