

A STANDARD UNIT OF MEASURE FOR TRANSCRIBED REPORTS

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Executive Summary

The American Health Information Management Association/Medical Transcription Industry Association (AHIMA/MTIA) Joint Task Force on Standards Development convened to recommend a standard unit of measure for medical transcription of patient medical records.

The goal was to implement a standard for content measurement that health information management (HIM) practitioners can use to evaluate in-house transcription staff and external transcription service suppliers. The task force's recommendation is based on the assumption that the standard measure must be applicable to all types of medical reports and various technologies. The approach has been to identify the most common unit of measure methodologies and define them for purposes of comparison, taking into consideration historical time frame, past and present technology, and the reasonable expectations of customers and service providers.

Background

The previously advanced standard unit of measure for medical record transcription was a 65-character line (commonly referred to as the AAMT line).¹ The 65-character line defined the text content of the medical report; characters included all letters, numbers, symbols, and formatting codes used to maintain and reproduce a document including the space bar, shift key, bold, underscore, and other keystrokes. Practitioners, however, worried that with the advent of word processors and personal computers, use of the 65-character line would deprive medical language specialists the credit for character count. They had a legitimate concern that their domain knowledge would be devalued.

Meanwhile, hospitals and service providers saw costs for technology and software increase, generating a need for metrics to represent investments in budgets and service charges. Many met this need by reporting cost per character and number of characters. Facilities introduced vital demographics and secure routing "characters" via macros into the report. Under this methodology, the cost of the technology is bundled along with domain knowledge and human resources, with rate per line for a total line count made up of human-generated characters and workflow-driven characters. However, a facility's cost for the line/character goes beyond labor. Thus, standardization of this metric is even more important.

Discussion

Benefits of a Standard Measure

The need for a standard measure for medical transcription of patient medical records has become ever more apparent. A standard measure adopted by all players in the industry and universally applied will result in various benefits to all parties, including:

1. Support of HIM departments in establishing and maintaining service level agreements: Patient medical record transcription may be managed in-house by facility HIM staff or an outside service supplier.
2. Better business relationships between healthcare organizations and medical transcription service organizations (MTSOs): Hospitals, physician practices, and clinics commonly outsource their transcription to MTSOs, which typically charge for services on a per-unit basis.
3. Improved tools for evaluating and selecting transcription service providers: Many transcription service suppliers have adopted unique line-counting or character-counting definitions in order to differentiate them and stand out in a crowded field.

Evaluating Existing Measurement Standards

Recognizing that the transcription field now employs a number of measurement standards, the task force sought first to identify and categorize those standards most often used, then conducted a comparative evaluation. The task force identified and evaluated the ASCII line, the 65-character line, gross line, gross page, per minute pricing, and visible black character (VBC) measurement standards. The issues related to adoption of a standard measurement methodology were explored from both the vendor and healthcare entity perspectives. Ultimately, the task force identified VBC as the only counting method that could be easily understood, verified, and replicated by all parties in the medical transcription business processes.

Definition of Visible Black Character

A VBC is a character that can be seen with the naked eye. Under this counting scheme, spaces, carriage returns, and hidden formatting instructions such as bolding, underline, text boxes, printer configurations, and spell checking are not counted in the total character count.

Recommendations

After evaluating these alternatives, the joint task force unanimously agreed that VBC is the only counting method that can be easily understood, verified, and replicated by all parties in the medical

transcription business processes. Accordingly, we propose the VBC as the standard unit of measure for medical transcription.

The task force recommends that this definition be adopted by all organizations producing medical transcription, including those using in-house staff to transcribe dictation.

Overview of the Issues and Purpose of the Task Force

Today's HIM practitioners need to accurately, easily, and confidently measure the various informatics of their department. Medical documentation and specifically the transcription of the patient medical record present a myriad of challenges. Whether the service is performed by facility personnel or outsourced to a service supplier who performs medical transcription, there is a necessity to monitor the various aspects of the process in order to properly achieve the service level agreements the department has committed to maintaining for its internal customers.

Quality assurance, timeliness of the information, and volume of the information all need to be quantified and measured. Of the three, measurement of the text content of a document has been perhaps open to the most interpretation and therefore given to a varied and somewhat confusing set of transcription metrics.

The purpose of this task force has been to:

- Identify the common unit of measure methodologies
- Define them for purposes of comparison
- Recommend a standard measure for the text content of a medical report based on specific criteria

It is intended that the standard measure be technology agnostic and applicable to all types of medical reports (i.e., radiology, pathology, general hospital transcription, and so on). The adoption of a standard of measure will prove useful in determining the productivity of an in-house staff or in evaluating the various proposals and billing methodologies from suppliers of transcription service.

Historical Perspective of Past Attempts at Standardization

A fair and reasonable way of defining a line cannot be determined in a vacuum. The historical time frame, past and present technology, and the reasonable expectations of customers and service providers have to be considered.

One definition was advanced, it must be remembered, as a 65-character line definition. Practitioners were concerned that the advent of word processors and personal computers would deprive medical language specialists of the credit for character count when they used this new technology. They had a reasonable concern that their domain knowledge would be devalued. The intent was to

use a broad enough parameter for the term character that the traditional method of compensation, per character/line, would continue to reflect the total number of characters/commands and not just keystrokes. This reasonable attempt to define the actual text content of the medical report ultimately failed.

Meanwhile, out of necessity hospitals/healthcare providers and service providers began to deal with the increased cost of technology and software. There was a need to represent this investment in budgets and service charges. Many facilities and companies began to reflect this in the cost per character and in the number of characters themselves. Vital demographics and secure routing “characters” via macros were introduced into the report. Whether internal to the hospital or outsourced, the cost of the technology was bundled along with the domain knowledge and human resource to determine a rate per line. Thus there were human-generated characters and workflow-driven characters making up the total line count. Remember that the cost of the line/character to the facility is not just labor. It is the total purchase outcome bundled into the unit of measure. This makes standardization of this metric even more important.

Providing benchmark files for comparisons of line counts is simple and straightforward. An ensuing audit of random reports and their respective counts against the original benchmark items is easily accomplished. Outsourcing, by its very nature, demands that you inspect what you expect to be delivered. If the service provider were representing all characters counted up front, the audit would be clean. A change of counting methodology by the service provider would be quickly detected.

Customers expect accurate information on time in a document that contributes to the patient care and revenue cycle management of the facility. The price they pay and how they contract for it are ultimately their decision, but the measurement of the text can be standardized for the benefit of all.

Practitioner Prospective Benefits of Standardization

Hospitals, physician practices, and clinics commonly outsource their transcription to medical transcription service organizations (MTSOs). MTSOs typically charge for services on a per unit basis. However, currently there is no standard unit of measure to compare one MTSO with another. In addition, there are a number of modifying factors that can include length of contract, turnaround times, and ownership of equipment that also influence the pricing structure.

As discussed elsewhere in this white paper, software suppliers to the transcription industry are flexible in determining character count methodology. Given the lack of standardized units of measure, it is very difficult to compare prices between MTSOs and create an objective value proposition with the associated services being provided.

Furthermore, given this lack of uniformity, healthcare providers utilizing in-house medical transcription could all be measuring their production with different methods. This makes it very difficult to determine the cost effectiveness of in-house transcription versus outsourcing. Typically

the HIM director in a healthcare facility is asked to prepare a request for proposal (RFP) for obtaining transcription outsourcing.

The review and scoring of RFP responses is inconsistent and like comparing apples and oranges due to the lack of standardization of billing methodologies. If volume and pricing were clearly understood by purchasers and MTSOs, time, money, and resources would be saved. The introduction of a standard unit of measure would make forecasts for cost of service more accurate, resulting in greater relational success. In-house costs could be objectively compared to outsourcing costs, and it would be easier for purchasers to compare various companies.

Once an MTSO has been selected by a healthcare provider, it becomes critical to verify the billing. In today's environment, with various units of measure in use, it becomes difficult to do this verification process. As discussed elsewhere in this document, some units of measure are impossible to verify with the naked eye. A standard unit of measure would allow practitioners to speak the same language as the MTSO, easily compare quotes for transcription service, verify accuracy of bills, and provide complete transparency in the count and billing process. This would allow the practitioners to more importantly focus on checking the quality of work provided to them by the MTSO and the turnaround time.

Success in developing a standard adopted by all players in the industry and universally applied by all would result in improved business relationships between healthcare organizations and medical transcription companies. It would provide transparency for the industry thus allowing for more objective decisions concerning medical transcription based upon better understanding of costs and cost comparisons. It would also enable buyers of medical transcription to focus on improved value propositions and to better differentiate between medical transcription suppliers once the cost has been easily determined.

Healthcare Provider Issues

Healthcare provider issues related to adoption to the proposed VBC standard are similar to those for vendors. The following should be considered:

- Contracting language would need to be examined for congruence with the VBC standard and updated as necessary.
- Staff responsible for transcription services would need to be educated about this counting method.
- Automated line counting software would need to be reviewed and updated.
- Facility policies, procedures, or other guidance that refer to validating transcribed line counts and billing methods would also need to reflect the VBC standard.

The provider must list each area for consideration for review, note those needing updating, and

allow enough time for changes and training prior to implementation of the updated standard.

Changes to contracts or software often carry dependencies on other departments within the organization or an outside vendor and require time and coordination and sometimes carry a cost. If contracting language is updated, and proposals for services are received, it will be important to validate that the change in counting methodology has not unduly influenced pricing. If so, that would be an indication that there may be a difference in wording/interpretation, and the proposed language should be reviewed and adjusted as appropriate prior to making any contractual agreements.

Any changes needed as a result of this standard should be able to be done in the normal course of business and not cause undue burden to the provider.

Service Supplier Prospective Benefits of Standardization

While buyers of transcription services have worked to understand and compare various vendor pricing models, suppliers have tried to find a way to stand out in a crowded field. Many suppliers have adopted unique line-counting or character-counting definitions in order to differentiate them from other suppliers. Unfortunately, the resulting proliferation of line-counting methods has only served to further confuse buyers who just want to understand how much they are going to be paying for transcription. The confusion over counting has led to an inordinate amount of focus on counting methodology, which ultimately detracts from important performance differentiators such as quality, turnaround time, and technology capabilities. This creates confusion and uncertainty for customers and makes it difficult for suppliers to know whether they are being compared with others on an equal footing.

There is a risk that putting everyone on an equal footing will simply accelerate commoditization of medical transcription. While this is a possible outcome, it is not necessarily the final result of this effort. Eliminating the focus on counting methodologies will bring other significant performance metrics to the foreground. By adopting an industry-standard line-counting method, suppliers will be able to focus their sales and marketing efforts on their unique competencies. In addition, the reduction in billing definitions will allow suppliers to simplify their proposals and ultimately their billing systems.

It is also important to note that the potential for unethical and ill-defined billing practices has tarnished the reputation of MTSOs. In fact, the integrity of individual companies and the industry has been an important issue for buyers and suppliers in recent years. By adopting the proposed standard unit of measure, suppliers can send a clear message that they value their credibility and are willing to have their production volume measured on the same basis as other suppliers. This will enhance the credibility of the entire industry.

Vendor Issues to Adoption

Vendor issues for adoption to the proposed VBC standard fall primarily into two categories: contractual and financial. In most cases, given the advancement of even the most simplistic word-processing applications, technical capability to support the VBC should not be an issue.

First, contractual modifications will be necessary to deviate from the historic methodologies contained in existing service agreements. This change can easily be accomplished legally through contract addendums or amendments. However, effective communication for the reason behind the change must occur with all customer stakeholders. Recommendations include, but should not be limited to, executive summaries, financial analysis, and comparative modeling until comfort is established with the expense equality of the proposed unit of measure.

The next major adjustment must occur internally within the finance department of the vendor company to properly support the new unit of measure. Financial analysis must be completed to establish the equivalent VBC pricing in comparison with the existing rate and unit of measure. The company must then ensure the counting and financial applications are properly configured to support the new method for consistency and verifiability. As mentioned previously, comparative modeling showing each method side by side on invoices will more than likely be required.

VBC Feasibility Survey

The success of this industry standard will be largely dependent upon practicality of application, acceptance in the business culture, and comprehensive availability of information technological expertise. To determine the existence of these key characteristics in the current environment, the task force conducted a survey of leading transcription software vendors and medical transcription service organizations. In addition, the membership of the MTIA Technology Committee was also included in the survey. The findings of the survey revealed a universal ability to measure transcription productivity utilizing VBC. The survey also indicated that VBC was widely accepted as the departmental standard for benchmarking and the preferred unit of measure for all customer invoicing.

Medical Transcription Service Organizations Survey Participants

Spheris—Jay Cannon, executive vice president, implementation and account services

SPi—David Woodrow, president and COO

Webmedx—Sean Carroll, CEO

MedWare—Keith Flannery, vice president

MedQuist—Howard Hoffmann, CEO

Software Vendor Survey Participants

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Nuance/Dictaphone—John Vaughan, senior production manager
MedQuist—Howard Hoffmann, CEO

MTIA Technology Committee

Sten-Tel, Inc—George Catuogno, president, chair technology committee

Explanation of Discussed Options

To develop a proposed standard unit of measure, the task force first evaluated the possible standards that could be adopted. These can be generally grouped into the following categories. While there are many variations within these categories, these are the primary methodologies in use today in the transcription industry. (An example comparison of the various counting methodologies applied to a sample report is included for review and analysis in [Appendix A](#).)

ASCII Line

ASCII characters are those printed and visible as part of the completed transcription document and includes spaces and tabs. Formatting such as bolding, underlining, text boxes, and printer instructions are not included in the final character count. An ASCII line is calculated by counting all ASCII characters in the document and dividing by the total number of characters in the established line (usually 65) to arrive at the number of defined lines. Some vendors may include text that appears in the headers and footers of the document as well.

Limitations: Because spaces and tabs are included in this definition, it is not easy to count a document with the naked eye.

65-Character Line

Under the 65-character line standard, characters include all letters, numbers, symbols, and formatting codes to maintain and reproduce a document, counting the space bar, shift key, bold, underscore, and other keystrokes. A 65-character line is calculated by counting all defined characters and keystrokes and simply dividing the total number of characters by 65 to arrive at the number of defined lines. Characters appearing in the headers and footers may also be counted.

Limitations: The inclusion of nonprinting characters and formatting instructions makes it difficult to validate the line count of individual documents.

Gross Line

A gross line is defined as any line containing one or more visible characters and typically includes all header and footer information. A character is defined as any letter, number, symbol, or space. A blank line with no visible characters is not counted as a gross line.

Limitations: All lines are counted equally, so a line containing only one word is counted the same as a line that fills the entire width of the page.

Gross Page

Though less common in recent years, some suppliers have priced their transcription based on the number of pages returned to the customer. Each page, regardless of the amount of text, would be charged a flat fee.

Limitations: Some pages may only contain a few words or lines. Moreover, increasing use of online viewing of medical transcription can make it difficult for customers to determine where one page ends and another begins.

Per-Minute Pricing

Generally speaking, a minute of dictation can be correlated to a certain number of typed characters or lines. To avoid the issues inherent in line counting, some suppliers price their transcription based on the number of minutes of dictation that have been received. This eliminates counting of the finished document.

Limitations: Fast and slow talkers can skew the total number of minutes. Long pauses are sometimes recorded in their entirety, so customers pay for dead air.

Visible Black Character

A visible black character (VBC) is a character you can see with the naked eye. Spaces, carriage returns, and hidden formatting instructions such as bolding, underlining, text boxes, printer configurations, and spell checking are not counted in the total character count.

Limitations: Not in widespread use at the present time.

Proposed Unit of Measure

A visible black character is defined as any printed letter, number, symbol, and/or punctuation mark excluding any/all formatting (e.g., bold, underline, italics, table structure, or formatting codes). All

visible black characters can be seen with the naked eye as a mark regardless of whether viewed electronically or on a printed page.

(See [figure 1](#))

Implementation Scenarios for Conversion from “Line or Character Billing Metrics” to “Visible Black Character Metrics”

Scenario—A healthcare facility has a current contract with a supplier for medical transcription outsourcing. The line definition is based on a “line,” which is composed of “characters” in some number. The facility and the supplier wish to move to a VBC metric.

Both sides review and agree that the VBC definition is understood clearly.

The existing line definition is reviewed and understood clearly by the parties.

Recommendation—Using the existing definition of the line, calculate the price per document as follows: number of lines generated in the current, under-review report, multiplied by the current contract price per line equals the price charged for that specific report. A representative sample of documents from specific work types can be taken and individually audited to determine the price charged for each report. This is important as different formats for different reports may, in fact, have a determination as to the line count based on the previously used definition. Determining a price per report will eliminate this as an issue.

Each of these reports would then be regenerated in a separate file and the agreed-upon VBC metric would be employed and each report counted to determine the exact number of VBCs contained in the report.

The number of VBCs in each report is then divided into the previously charged amount for each report, and the resultant fractional number would equate to a rate per VBC.

This exercise eliminates any confusion as to previous line definitions. The assumption here is that the facility has been receiving a quality, acceptable, on-time report. The price for the report then becomes the central driver rather than the previous definition of the line.

The facility and the supplier will then have determined a VBC rate that establishes a benchmark for further action. As an example, if there are any premiums allowed for faster turnaround time or for specific work types, these would then be factored against the rate per VBC.

Conclusion

After evaluating these alternatives, the AHIMA/MTIA task force unanimously agreed that the visible black character is the only counting method that could be easily understood, verified, and replicated by all parties in the medical transcription business processes. In embracing this standard we cross

an important threshold regarding a standard unit of measure for billing verification. Accordingly, we propose the visible black character as the standard unit of measure for medical transcription.

The joint task force recommends that this definition be adopted by all organizations producing medical transcription, including those using in-house staff to transcribe dictation.

Notes

1. The 65-character line standard was an industry initiative begun to address the need for a standard industrywide unit of measure for content measurement. Development of the standard was initiated by the American Association for Medical Transcription and supported by AHIMA. The standard was never formally identified as an "AAMT line," but this term is used informally by service providers.

Reference

MTIA Billing Methods Principles Committee. "Vision and Scope Document for the RFP Standard Unit of Measure Definition and Verification Tool, Version 1.1." May 24, 2006. Available online at <http://www.mtia.com/>.

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The American Health Information Management Association (AHIMA) is the premier association of health information management (HIM) professionals. AHIMA's 51,000 members are dedicated to the effective management of personal health information needed to deliver quality healthcare to the public. Founded in 1928 to improve the quality of medical records, AHIMA is committed to advancing the HIM profession in an increasingly electronic and global environment through leadership in advocacy, education, certification, and lifelong learning. To learn more, go to <http://www.ahima.org/>.

The Medical Transcription Industry Association is a not-for-profit trade association serving the needs of medical transcription companies, vendors, and health information management professionals. To learn more, go to <http://www.mtia.com/>.

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