Computer Assisted Coding -- Markets Reach $5.1 Billion By 2023

LEXINGTON, Massachusetts (March 13, 2017) – WinterGreen Research announces that it has published a new study Computer Assisted Coding: Market Shares, Strategy, and Forecasts, Worldwide, 2017 to 2023. Next generation Computer Assisted Coding of medical information is able to leverage natural language software technology to support some automation of the billing process and use of analytics to achieve higher quality patient outcomes.   The study has 299 pages and 110 tables and figures.

Computer assisted coding of medical information uses natural language solutions to link the physician notes in an electronic patient record to the codes used for billing Medicare, Medicaid, and private insurance companies.

Natural language processing is used determine the links to codes.   88% of the coding can occur automatically without human review. Computer assisted coding is used in all parts of the healthcare delivery system. The coding systems work well to implement automated coding process.

Physicians think about patient conditions in terms of words. Software is configured to achieve working with physicians who are more comfortable describing a patient treatment in words than codes. The electronic patient record, created using physician dictation, is used to form the base for the coding. Natural language solutions implement computer coding to identify key words and patterns of language. The physician dictation can be done using regular language that the software recognizes and translates into billing codes.

Properly designed natural language processing (NLP) solutions do not require physicians to change the way they work. They can dictate in a free-flowing fashion, consistent with the way they think, and are not limited to structured inputs that may or may not fully capture the unique circumstances of each patient encounter.

Matching codes generated from physician notes to standard treatment protocols promises to improve health care delivery. Accompanying that type of physician patient

management against best practice promises to revolutionize health care delivery. The ability to further check as to whether the recommendations for follow up made by radiologists and matching the commendations with the actual follow up heralds' significant promise of vastly improved health care delivery.

Computer assisted coding applications depend on the development of production quality natural language processing (NLP)-based computer assisted coding applications. This requires a process-driven approach to software development and quality assurance.

A well-defined software engineering process consists of requirements analysis, preliminary design, detailed design, implementation, unit testing, system testing and deployment. NLP complex technology defines the key features of a computer assisted coding (CAC) application.

Automation of process will revolutionize health care delivery. In addition to automating the insurance, billing, and transaction systems, streamlined care delivery is an added benefit. The ability to look at workflow and compare actual care to best practice is fundamental to automated business process.

The ability to link diagnostic patient information to treatment regimes and drug prescriptions is central to improving medical care delivery. Once a physician can see what conditions need to be followed, and see that appropriate care has been prescribed 100% of the time, care delivery improves dramatically. Diagnosis of conditions using radiology frequently results in detection of events that need follow-up.

According to Susan Eustis, lead author of the team that prepared the study, "Growing acceptance of computer assisted coding for physician offices represents a shift to cloud computing and billing by the procedure coded. Because SaaS based CAC provides an improvement over current coding techniques the value is being recognized. Administrators are realizing the benefits to quality of care. Patients feel better after robotic surgery and the surgeries are more likely to be successful."

The worldwide market for Computer Assisted Coding is $2.8 billion in 2016, anticipated to reach $5.1 billion by 2023. The complete report provides a comprehensive analysis of Computer Assisted Coding in different categories, illustrating the diversity of software

market segments. A complete procedure analysis is done, looking at numbers of procedures and doing penetration analysis.

Major health plans report a smooth transition to ICD-10. This is due to rigorous testing for six years. ICD-10 has had a positive impact on reimbursement. ICD-10 coding system requires use of 72,000 procedure codes and 68,000 CM codes, as opposed to the 4,000 and 14,000 in the ICD-9 system. Managing high volume of codes requires automation. Healthcare providers and payers use complex coding systems, which drives demand for technologically advanced CAC systems.

The market for computer-assisted coding grows because it provides management of workflow process value by encouraging increasing efficiency in care delivery. By making more granular demarcation of diagnoses and care provided for each diagnosis, greater visibility into the care delivery system is provided. Greater visibility brings more ability to adapt the system to successful treatments.

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