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2011

PRAXIS®
Electronic Medical Records

2011 North American Clinical Documentation Technology Innovation Award

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50 Years of Growth, Innovation & Leadership

**Technology Innovation Award
Clinical Documentation
North America, 2011**

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360 Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2011 North American Technology Innovation Award in Clinical Documentation to Infor-Med, Inc, makers of Praxis EMR (Electronic Medical Records).

Significance of the Technology Innovation Award

Key Industry Challenges Addressed by Technology Innovation

The U.S. healthcare system is facing a number of pressures that drive the need for transformational change. The nation's demand for healthcare services continues to grow, while the ability to efficiently and effectively meet this need presents ever-growing challenges. Numerous factors contribute to this situation, including demographic shifts marked by an aging society, a rise in complex chronic conditions like diabetes, heart disease, and obesity, clinician workforce shortages, and socio-economic challenges brought on by a prolonged recession. In addition, the impact of out-of-control healthcare costs on federal and state deficits adds to the sense of urgency to change the status quo.

The significant rise in the use of information technology by healthcare providers is due in large part to the recognition that change is inevitable. Paper-based patient records are completely inefficient in today's medical environment, where quality and safety improvements, coordinated care, evidence-based medicine, and outcomes-based reimbursement are so crucial. While policy makers have long promoted the use of information technology to increase quality, safety, and cost efficiency, the passage of the HITECH Act in 2009 has significantly accelerated progress towards the digitization of health data and the adoption of electronic medical records, or EMRs. The EMR is essentially a digitized patient chart that incorporates a variety of structured and unstructured electronic information about a patient.

The shift to digitized health records is a significant change for many physicians who practice in ambulatory care settings. One of the reasons for the slow uptake in EMRs has

to do with the challenges of clinical documentation and the way that most EMRs approach these challenges. EMR software often includes templates, which are preset formats containing lists of inputs used for clinical documentation. Many EMR vendors believe that templates can help expedite data entry and quality assurance by standardizing data collection. However, templates can be highly structured: the ways to describe symptoms and treatment are limited to those provided by the software vendor. As a result, many physicians complain that the structure of templates is too confined, impeding their ability to fully document a clinical encounter in the way that is best suited to their practice. While vendors may provide stock templates that can be customized, many physicians prefer a freedom and flexibility in charting that is simply not possible with most template based EMRs. Furthermore, it can take considerable time and effort to customize or modify templates so that they are relevant and useful for a particular physician.

An EMR that does not incorporate templates provides the physician with total control over what is in the patient record and how diagnoses and treatments are described. The superiority of narrative free text over boiler plate templates is the philosophy that drives Infor-Med's Praxis EMR. Infor-Med, founded by a practicing physician in 1989 and headquartered in California, pioneered the use of an artificial intelligence technology called "Concept Processing" to create Praxis EMR. The Concept Processing technology "learns" the way a physician practices medicine, allowing the physician to develop his or her own knowledge base instead of being restricted to a template based EMR. Infor-Med understands that the physician- not the software vendor- knows the best documentation method for their clinic. Praxis EMR is a tool that enables customized clinical documentation based on a physician's own experience, knowledge, and practice specialty.

Clinical documentation must accurately and specifically represent the work of a physician, both to ensure quality care and so that physicians may be properly reimbursed for their services. Poor clinical documentation can harm patients and physicians in many ways. As a critical documentation tool, however, the EMR is often a distraction rather than a help: physicians find that many EMRs do not fit their preferred workflow. Physicians have two basic needs in documenting the clinical encounter. First, they need to create an accurate description of the encounter in a manner that is thorough but quick. Second, they need to create a searchable description of the encounter so that it can be easily retrieved and analyzed for reporting purposes – a feature that is increasingly important in an era of Meaningful Use and pay for performance. On average, the time physicians spend retrieving and reviewing patient results can account for up to 25 percent of their day. The EMR usability issue has been a major frustration for physicians who complain that it often takes longer to document a note in an EMR that it does on paper, taking up extra time they don't have to spare. Time is a physician's most precious commodity and they seek technologies that help them work at maximum efficiency. Praxis EMR provides physicians with the highest degree of freedom and flexibility for both charting and retrieving information. Praxis EMR helps physicians save time, improve the quality of patient care, and qualify for Meaningful Use and pay for performance incentives.

As the U.S. healthcare system moves away from fee-for-service reimbursement towards a more outcomes-based reimbursement system, the need for high-quality clinical documentation will be fundamental to healthcare providers' operational and clinical success. Infor-Med's Praxis EMR helps physicians effectively address the many challenges of clinical documentation and allows them to focus on what matters – taking care of patients.

Impact of Technology Innovation Award on Key Stakeholders
The Technology Innovation Award is a prestigious recognition of Infor-Med's accomplishments in Clinical Documentation with Praxis EMR. This unbiased, third-party recognition will enhance brand value and accelerate growth. As captured in Chart 1 below, by researching, ranking, and recognizing those who deliver excellence and best practices in their respective endeavors, Frost & Sullivan hopes to inspire, influence, and impact three specific constituencies:
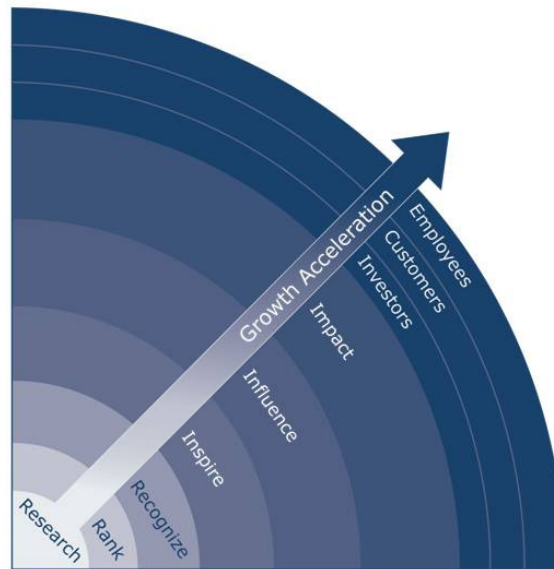
- **Investors**
  Investors and shareholders always welcome unbiased and impartial third-party recognition. Similarly, prospective investors and shareholders are drawn to companies with a well-established reputation for excellence. Unbiased validation is the best and most credible way to showcase an organization worthy of investment.

- **Customers**
  Third-party industry recognition has been proven to be the most effective way to assure customers that they are partnering with an organization that is leading in its field.

- **Employees**
  This Award represents the creativity and dedication of Infor-Med's executive team and employees. Such public recognition can boost morale and inspire the team to continue its best-in-class pursuit of a strong competitive position for Praxis EMR.

Chart 1: Best Practices Leverage for Growth Acceleration

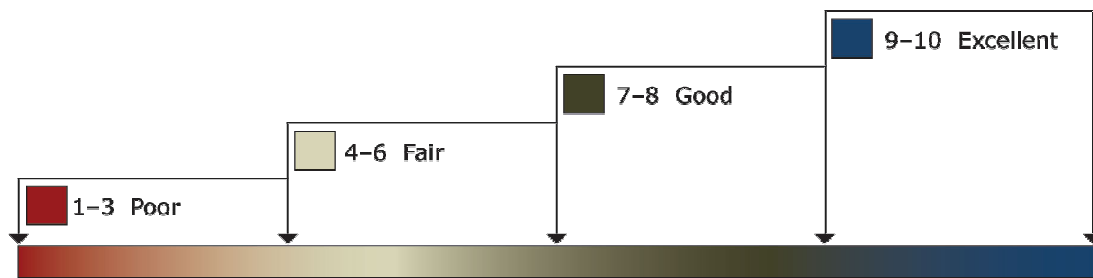## Key Benchmarking Criteria for Technology Innovation Award

For the Technology Innovation Award, the following criteria were used to benchmark Praxis EMR's performance against key competitors:

- Uniqueness of Technology

- Impact on New Products/Applications

- Impact on Functionality

- Impact on Customer Value

- Relevance of Innovation to Industry

Decision Support Matrix and Measurement Criteria

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Matrix (DSM). The DSM is an analytical tool that compares companies' performance relative to each other with an integration of quantitative and qualitative metrics. The DSM features criteria unique to each Award category and ranks importance by assigning weights to each criterion. The relative weighting reflects current market conditions and illustrates the associated importance of each criterion according to Frost & Sullivan. Fundamentally, each DSM is distinct for each market and Award category. The DSM allows our research and consulting teams to objectively analyze each company's performance on each criterion relative to its top competitors and assign performance ratings on that basis. The DSM follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are shown in Chart 2.

Chart 2: Performance-Based Ratings for Decision Support Matrix

This exercise encompasses all criteria, leading to a weighted average ranking of each company. Researchers can then easily identify the company with the highest ranking. As a final step, the research team confirms the veracity of the model by ensuring that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

Chart 3: Frost & Sullivan's 10-Step Process for Identifying Award Recipients

Best Practice Award Analysis for Praxis EMR

The Decision Support Matrix, shown in Chart 4, illustrates the relative importance of each criterion for the Technology Innovation Award and the ratings for each company under evaluation. To remain unbiased while also protecting the interests of the other organizations reviewed, we have chosen to refer to the other key players as Competitor 1 and Competitor 2.

Chart 4: Decision Support Matrix for Technology Innovation Award

Measurement of 1–10 (1 = lowest; 10 = highest)	Award Criteria					
	Uniqueness of Technology	Impact on New Products/Applications	Impact on Functionality	Impact on Customer Value	Relevance of Innovation to Industry	Weighted Rating
Relative Weight (%)	20%	20%	20%	20%	20%	100%
Infor-Med's Praxis EMR v5	10	9	10	10	9	9.6
Competitor 1	8	8	8	10	9	8.8
Competitor 2	8	8	9	9	9	8.6

Criterion 1: Uniqueness of Technology

Unlike most EMRs, including those marketed by Competitors 1 and 2, Praxis EMR does not rely on the use of vendor-produced templates for clinical documentation but instead allows physicians the freedom to chart using their own words. Praxis technology is based on a unique artificial intelligence engine called a Concept Processor that learns from the physician and truly becomes the physician's partner. While the Praxis EMR display is similar to many other EMRs, the product's uniqueness lies in the way the technology builds upon an existing knowledge base formulated from previous, similar patient encounters. In that way, Praxis gets smarter and faster as the knowledge based grows with continued use. In contrast, template-based EMRs are more static in terms of user experience and cannot offer the same continuous learning experience for the end user. Because it does not depend on rigid templates, Praxis enables physicians to document a patient encounter using free text, capturing the patient's story exactly as the physician wishes.

In Praxis EMR v5, released in 2011, the signature Concept Processing technology has been further enhanced with the addition of several key features. The Praxis Knowledge

Exchanger is a comprehensive database that contains deep medical knowledge across many different specialties. The Knowledge Exchanger serves as an expert reference database, enabling a rapid start for new Praxis users and enhancing the charting experience for established Praxis users. The Knowledge Exchanger enables physicians to instantly benefit from the medical knowledge of their peers while maintaining a completely separate Praxis Knowledge Base that self-learns as before.

Also new to Praxis v5 is Praxis Datum, an unprecedented new feature that resolves the incompatibility between naturally-written text and concrete data. With Datum, it is now possible to embed discrete data directly into free text, as well as to pull data from free text using the Praxis Query Engine. This capability presents new possibilities for clinical research institutions, as well as physicians seeking to create their own queries.

Criterion 2: Impact on New Products/Applications

Praxis EMR includes many features that help physicians continuously improve both the quality of patient care and the efficiency of their medical practice. For example, when a patient presents certain conditions, the Praxis system triggers Clinical Practice Advisories, "agents" that send notifications advising further steps to be taken. Agents can be placed directly into the patient note, can be programmed to activate at specific times, and can be targeted with messages meant for specific users, both clinical and administrative. Agents only need to be created once and, like patient notes, can be used again with many patients under similar circumstances. Praxis agents are particularly useful for Meaningful Use compliance in addition to other regulatory requirements. Praxis EMR v5 also includes a new feature that allows users to link Clinical Practice Advisories together, creating Clinical Practice Algorithms that can be set up once and then used by all the providers within the practice or clinic. This saves time, ensures that clinical care is based on the best recommendations, and offers the practice legal protection.

Praxis EMR v5's new Query Engine is capable of working with the myriad third party reporting initiatives driven by healthcare reform, including all Medicare Physician Quality Reporting Initiatives (PQRI), pay for performance, and Meaningful Use requirements. Praxis EMR v5 has been certified by the Drummond Group (ONC-ATCB) as a complete EHR and includes built-in queries for all 38 clinical quality measures needed to attest to Meaningful Use. In addition, Praxis DataMiner allows users to instantly query any clinical information from the Praxis database, making it the perfect tool for research institutions and clinical studies.

Criterion 3: Impact on Functionality

Praxis EMR v5 helps provide a seamless automated workflow for the entire medical practice. The Concept Processor works by building upon the physician's own knowledge. Documentation for new patient encounters can be accomplished in a smooth and rapid fashion with minimal changes needed. Because documentation is based on previous,

similar patient encounters, the physician never has to write anything more than once. Populating a new patient note with basic terms and concepts that have been previously used by the same physician, often many times over, saves an enormous amount time and improves physician satisfaction and engagement. In addition, Praxis automatically generates prescriptions, lab orders, procedure reports, referrals, letters, patient instructions, superbills, and so on instantly at the time of charting. Praxis v5 also includes e-prescribing with Surescripts, allowing physicians to electronically exchange prescription information with pharmacies throughout the U.S., as well as allowing for electronic routing of prescription refill requests.

Criterion 4: Impact on Customer Value

Over the last 20 years, Infor-Med's Praxis EMR has received numerous accolades from many satisfied users. The company continues to enjoy the support of an active customer base of over 5000 physicians across North America and throughout the world. Most importantly, Praxis has been recognized by esteemed physician organizations like the American Academy of Family Practitioners (AAFP) the American College of Physicians (ACP), as well as the KLAS Report. Praxis has consistently received number one rankings in a variety of key categories including User Satisfaction, Ease of Use/Usability, Medical Quality, Health Maintenance, Disease Management, and Training and Support.

This exceptional level of customer engagement is a result of Infor-Med's dedication to their physician clients and their continuous efforts to develop an EMR based exclusively on physician needs. Unlike Competitors 1 and 2, Infor-Med's team of physicians, software developers, trainers, and support technicians are exclusively focused on clinical documentation as opposed to billing and financial software. Infor-Med believes that there is a significant difference between software designed for doctors and software designed for medical billers, and that it is very difficult for one vendor to maintain expertise in these two very different areas. Therefore, from its inception as a physician-owned company, Infor-Med has focused solely on developing the most user-friendly and high-functioning clinical documentation tool for physicians – Praxis EMR. To enable billing, Praxis EMR does connect seamlessly with Infor-Med's preferred billing partners, including TotalMD, CollaborateMD, MedFX, Lytec, Medisoft, and numerous others.

Criterion 5: Relevance of Innovation to Industry

Infor-Med was established with the goal of developing the finest EMR in the world. The company has dedicated years of hard work to the continuous development of Praxis EMR in response to feedback from its dedicated physician-users. With each successive upgrade, new versions of Praxis EMR provide around 20 times more power than previous versions. Thus, Praxis EMR v5 is a highly robust clinical documentation tool that is ideally suited to the demands of the dynamic and challenging environment that physicians practice in today. As the use of EMRs becomes ever more critical, the template-free Praxis EMR provides an alternative to the standard template-based EMR, thereby helping physicians

engage with health information technology in way that is both personally satisfying and professionally practical. By enabling a more satisfying user experience, Praxis EMR helps ensure the sustained adoption of EMRs, which is essential for the achievement of Meaningful Use and for continued improvement in the quality and safety of patient care.

Conclusion

Since its inception 20 years ago, Infor-Med, Inc. has been driven by one overriding goal: to help physicians practice quality medicine with technology they can embrace and enjoy using. Instead of relying on templates, Praxis EMR self-learns directly from physicians as they document patient encounters in the most natural and straightforward manner – using free text. Praxis EMR is a unique technology that provides a quick and easy way to document patient encounters by using the physician's own words and concepts instead of those created by a software vendor. This focus on clinical usability within the physician workflow gets to the heart of what is needed to grow EMR adoption. Infor-Med's focus on innovation and deep understanding of what physicians look for in an EMR has enabled Praxis EMR to consistently earn top ratings in numerous physician user satisfaction surveys conducted by respected medical societies like the AAFP and the ACP.

Physicians understand that the health system must change and that EMRs are at the core of that change. In a market where technology solutions are often oversold, Praxis EMR offers a very practical solution to the issue at the core of every physician practice – efficient and effective clinical documentation. As many satisfied users have discovered, Praxis EMR delivers on its promise to help physicians streamline their standard charting functions while simultaneously improving the quality of patient care, driving overall practice efficiencies, saving time, and maximizing reimbursements. Furthermore, Praxis EMR is fully certified and enables physicians to achieve Meaningful Use with a high degree of freedom and flexibility.

The CEO 360-Degree Perspective^{TM} - Visionary Platform for Growth Strategies

The CEO 360-Degree Perspective™ model provides a clear illustration of the complex business universe in which CEOs and their management teams live today. It represents the foundation of Frost & Sullivan's global research organization and provides the basis on which companies can gain a visionary and strategic understanding of the market. The CEO 360-Degree Perspective™ is also a "must-have" requirement for the identification and analysis of best-practice performance by industry leaders.

The CEO 360-Degree Perspective™ model enables our clients to gain a comprehensive, action-oriented understanding of market evolution and its implications for their companies' growth strategies. As illustrated in Chart 5 below, the following six-step process outlines how our researchers and consultants embed the CEO 360-Degree Perspective™ into their analyses and recommendations.

Chart 5: The CEO's 360-Degree Perspective™ Model

Critical Importance of TEAM Research

Frost & Sullivan's TEAM Research methodology represents the analytical rigor of our research process. It offers a 360 degree view of industry challenges, trends, and issues by integrating all seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

Chart 6: Benchmarking Performance with TEAM Research

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best-practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.