Exceptional Patient Care



innovation

Exceptional Patient Care Innovation

Our organization was formed almost two decades ago with the singular purpose of creating exceptional profits for the shareholders of our Company.

The creation of Intellectual Property (IP) in the form of copyrights, patents and trade secrets has been and continues to be the focus of our Company's efforts to achieve this profit motive.

The creative efforts of over 40 individuals during this exploratory and developmental period have culminated in four patents issued, two patent reissues and several more patents now in various stages of the application process. This group of physicists, chemists, electrical, mechanical and design engineers provided the basis of the team that met this creative goal. Our team includes laboratory technicians, machinists, administrative support personnel, medical advisors, corporate directors, and now experienced marketing personnel. There is now one additional patent applications under review in the US with recommendation for approval of the core claims from the International Patent Examiner that extends the protection of the IP under exclusive license to our Company for medical utilization.

With direction from the Company's management and the support of our highly experienced and qualified directors, advisors and staff, our organization is poised for the commercialization of our IP. Our Clinical Sentinel IP is now ready to be incorporated in medical devices to meet the growing demand for accurate, affordable and real time glucose measurement in hospitals. TecMed, Inc. is committed to aid in the current global effort to lessen the devastating toll of uncontrolled blood sugar in hospitals worldwide.

Our fundamental business model relies on the formation of outside business relationships. These outside relationships will bring skills, talents and experience for the completion of the product designs, as well as, the manufacturing and distribution of products to the marketplace. Exceptional profits for all are inherent in this business model.

Thank You

Alan J. Leszinske President

Perspective

"This is a Market looking for a Device, not a Device looking for a Market!"

—Stuart Pett, M.D., Retired Chief, Cardiothoracic Surgery Albuquerque, New Mexico

> Tenured Associate Professor of Surgery University of New Mexico School of Medicine

"Accuracy and Immediacy are Critical for Blood Glucose Management"

—Jeremy Gleeson, M.D., Chairman Endocrinology & Associate Medical Director for Medical Specialties, Lovelace Hospitals Albuquerque, New Mexico

Castle Connolly America's Top Doctor Selection 2015 "U.S. News Top Doctors" Selection U.S. News & World Report 2013



Mandated Requirements

The most recent FDA blood glucose measurement device requirements become effective in May of 2016. The new regulations mandate accuracy of +/-15% and over 40% of commercially available meters will fail to meet this new requirement.

TecMed's innovative, proven and patented intellectual property (the Sentinel IP) is the only solution that can provide the +/-5% accuracy desired by medical professionals for therapeutic decisions.

| Diabetes Care | |
|---|---|
| | CrossMark |
| Performance of Blood Glucose Meters in the Low-Glucose Range: Current Evaluations Indicate That It Is Not Sufficient From a Clinical Point of View DOI: 10.2337/dc15-0817 | Lutz Heinemann, ¹ Eric Zijlstra, ² Stefan Pleus, ³ and Guido Freckmann ³ |
| FierceMedical Devices | |
| Experts question the accuracy of blood g meters July 24, 2015 By Varun Saxena | glucose |
| | |
| Scientists Question Accuracy of Prominent Ble | ood Glucose Meters |
| ar of newly implemented Affordabl | e Care Act reimburser |

In the fourth year of newly implemented Affordable Care Act reimbursement mandates, nearly half of US hospitals were penalized for noncompliance. These penalties totaled almost a Billion dollars in 2015.

By 2017, 84% of US hospitals will receive a net reduction in payments.



Demonstrated Need

In early 2012 intensive and critical care health professionals were surveyed and more than 94% agreed that blood glucose control in intensive care settings is critical or important.



Intensive and Critical Care Professionals Survey Results

Until now, there have been no automated, accurate, reliable, and cost effective solutions that provide real-time glucose measurements before, during, and after major surgical procedures (perioperatively) in a way that enables physicians and other healthcare professionals to make the necessary therapeutic decisions to maintain minute-by-minute appropriate blood glucose levels during a patient's entire time in the hospital.^{1.9} NICE-SUGAR, VISEP and GluControl^{2.7}, are only some of the recognized peer reviewed studies that have demonstrated the insufficiency of existing measurement methods for maintaining tight blood glucose levels in critically ill patients.



Surgical Suite Sentinel

The patented intellectual property (IP) embodied in the Surgical Suite Sentinel provides accurate, reliable, automated, real-time glucose monitoring designed to measure blood glucose levels before, during, and after major surgical procedures (perioperatively), and in critically ill patients.

The Surgical Suite Sentinel IP is a "First-to-Market" opportunity which provides exceptional patient care solutions for real-time blood glucose measurement. With diabetes currently at pandemic levels in the U.S. and worldwide, the compelling need for this clinically proven technology has grown rapidly.

Extensive design and development, completed with a focus on commercialization, has provided highly advanced prototypes that will facilitate the transfer of TecMed's technology to expedite market device design and development. Third party device design and manufacturing firms have validated our belief that our instrumentation and designs will provide for our partners straight forward and cost effective solutions for commercial development and manufacturing.

| Data Table - Precision Study | |
|------------------------------|--|
| March 2015 | |

| Number of Studies | 27 | |
|--------------------------------------|---------------|--|
| Number of Samples | 217 | |
| Glucose Concentration Range | 50-400mg/dL | |
| | Data Analysis | |
| Linear Regression Coefficient | 1.00 | |
| Mean Average Relative Deviation (mg) | 3 mg | |
| Mean Average Relative Deviation (%) | 2% | |
| 95% Confidence Interval (mg) | 5mg | |
| 95% Confidence Interval (%) | 4% | |
| Correlation Coefficient | 0.99944 | |



Commercialization of this innovative patient care technology is our focus.



Critical Care Sentinel

Published studies demonstrate that appropriate management of blood sugar levels in critically ill patients will shorten hospital stays, reduce hospital acquired infections, and provide faster and more complete healing.²⁻⁷

Seventy-five percent of critically ill patients will experience some form of stress glycemia that makes maintaining desired blood sugar concentrations difficult. For many of these patients stress glycemia will lead to the onset of Type II diabetes.

Until now, one of the greatest challenges in tightly managing patient blood glucose has been the identification of accurate and cost effective means to provide real-time measurement data enabling appropriate therapeutic decisions by medical staff.





The Sentinel Clinical IP delivers accuracy that exceeds all existing and proposed ISO, CE, and FDA glucose measurement standards by as much as 1200%.

- TecMed, Inc. Clinical Sentinel IP (+/- 6%)
- Clinical Point of Care Gold Standard Certified under CLSI/FDA POCT12 (+/- 12.5%)
- Consumer Diabetic Monitors Certified under ISO/FDA 2009 (+/- 15%)
- Technologies Under Development & Products Certified under ISO/FDA 2003 (+/- 20%)

The Sentinel Clinical IP is highly flexible and permits stand alone devices or incorporation into other platforms that monitor numerous vital signs concurrently. The highly advanced Sentinel Clinical IP provides automation, unprecedented accuracy, straightforward electronic records integration and substantial time and cost savings.

The patented and patent pending Clinical Sentinel IP is the solution healthcare professionals have been asking for. Appropriate blood glucose management, better patient outcomes and lower healthcare costs are goals to which we all aspire.



Consumer Sentinel

TecMed's innovative **non-invasive and needle free** technology for diabetic self-monitoring will help create a better and more self-actuated lifestyle for millions of diabetics worldwide.

For more than two decades the knowledge that appropriate blood sugar management for diabetics would delay the onset and slow the progress of health complications such as heart disease, kidney failure, amputations, blindness and death has been widely known and accepted.

Proof of concept and early human studies have been completed for both the non-invasive, needle free, consumer IP and the technology for devices to be utilized in hospitals and medical research laboratories.



Clarke Error Grid | Consumer Sentinel IP Combined Plot | Human Studies

The scientific and technical proofs have been completed for our non-invasive diabetic self blood glucose monitoring (SBGM) technology called the Sentinel. The global consumer blood glucose monitor markets are currently valued at more than \$12B and will continue to grow for the foreseeable future.

With appropriately capable commercialization partners the introduction of truly non-invasive and needle free consumer monitors utilizing our IP, with limited human trials completed, for diabetics could be expected in as little as two years.

tec**med**

Proven Performance

The patented Sentinel IP for surgical, critical care, medical laboratory and consumer blood glucose measurement has proven unparalleled accuracy in human and laboratory studies.

The Surgical Suite IP is designed to meet the specific demand for accurate, reliable, and automated glucose measurement for the perioperative and critical care markets. The Sentinel Surgical Suite IP provides for improved patient outcomes and lower healthcare costs by automatically delivering medical professionals the necessary information to make timely therapeutic decisions to promote better and faster healing, more complete recovery of mental acuity, and reduced both morbidity and mortality by appropriately controlled blood glucose.

TecMed's Sentinel Surgical Suite IP has proven capability to provide accurate, timely and reliable automated blood glucose measurements to meet this critically mandated patient care need.



Clarke Error Grid | Surgical Suite IP Combined Plot | 25 Human Studies

The graphic above illustrates that all of the measurements are in the FDA preferred "A" area of the Clarke Error Grid. This demonstrates that the Surgical Suite IP meets the necessary and required accuracy for clinical patient settings.



Market Opportunity

The unique technology TecMed, Inc. is now offering for commercialization has been created and designed to provide "exceptional" profits for all involved.

Industry Projected Market Growth (\$US) Global Point of Care Monitoring



The global glucose point-of -care monitoring market is currently valued at over \$3 billion annually and is now expected to grow to exceed \$9 billion annually by the year 2020.⁸⁻⁹

This "First-to-Market" perioperative and critical care opportunity for accurate, real-time automated, convenient and low cost blood glucose measurement will position the "partner" of TecMed for very significant revenues and exceptional profits. This market profit will rapidly grow to many hundreds of millions of dollars annually.



United States Point of Care Monitoring

It is estimated that there are nearly six million critical care patients each year in the United States that would benefit from the unique Intellectual Property being made available to satisfy this unmet market need.

Growth of this market is estimated to be 4.9% annually.¹⁰⁻¹¹ With the growing recognition for the importance of proper glucose measurement and management, this US market as well as the global markets will realistically continue its expansion.

The substantial design and development of TecMed's Intellectual Property assures the low cost of market design development and certification of the Surgical Suite Unit for our partners. Establishing the marketing, manufacturing and distribution channels will be straightforward.

This is a profit opportunity that should not be ignored.



Profit Opportunity

The critical importance of blood glucose management for diabetics and hospitalized patients alike is no longer debatable. Appropriately managed blood glucose provides faster and more complete healing, recovery of mental acuity, and reduced complications.

The Sentinel Clinical IP is the only available and/or recognized solution to the need for accurate and automated blood glucose measurement. The graphic below illustrates the expected economic value of the perioperative and critical care markets in the United States.



Our intellectual property is now ready for market device design and commercialization. TecMed's research indicates that the cost for commercializing this technology will be low in consideration of the advanced level of the intellectual property.

First to market opportunity in these high demand environments will provide hundreds of millions of dollars in earned income for our partners within the first few years of product entry.

Utilization of the TecMed Sentinel IP in devices targeted for commercialization in perioperative and critical care environments can provide hospital cost savings in excess of \$1B each year.

The need is clear and "The Solution" even more so!



References

- Weidong Zhu, Libing Jiang, Shouyin Jiang, Yuefeng Ma, and Mao Zhang; Real-Time Continuous Glucose Monitoring Versus Conventional Glucose Monitoring in Critically III Patients: A Systematic Review Protocol. BMJ Open, 2015; Vol. 5
- 2. Carole Alison Chrvala, PhD; The Challenges of Glycemic Control in Hospitalized Patients. Med Page Today Online, published February, 24, 2015
- Daphne T. Boom, Marjolein K. Secterberger, Saskia Rijkenberg, Susanne Kreder, Rob J. Bosman, Jos PJ Wester, Ilse van Stijn, and Peter HJ van der Voort; Insulin Treatment Guided by Subcutaneous Continuous Glucose Monitoring Compared to Frequent Point-of-Care Measurement in Critically III Patients: A Randomized Controlled Trial. Critical Care Forum, 2014, 18;453
- Roosmarijn TM van Hooijdonk, Tineke Winters, Johan C. Fischer, Edme'e C van Dongen-Lases, James S. Krinsley, Jean-Charles Preiser, and Marcus J. Schultz; Accuracy, and Limitations of Continuous Glucose Monitoring Using Spectroscopy in Critically III Patients. Annals of Intensive Care, 2014, Vol. 4, Issue 8
- Jan Werneman, Thomas Desaive, Simon Finfer, Luc Foubert, Anthony Furnary Ulrike Holzinger, Roman Hovorka, Jeffrey Joseph, Mikhail Kosiborod, James Krinsley, Deter Mesotten, Stanley Nasraway, Olav Rooyackers, Marcus J. Schultz, Tom Van Herpe, Robert A. Vigersky, and Jean-Charles Preiser; Continuous Glucose Control in the ICU: Report of a 2013 Round Table Meeting. Critical Care, Volume 18, Issue 226, 2014
- 6. Genna Rollins; Panel Advises Blood Glucose Testing in All Hospitalized Patients; Are Glucose Meters Accurate Enough to do the Job? Clinical Laboratory News, February 2012: Volume 38, Number 2
- 7. Shigeaki Inoue, Moritoki Egi, Joji Kotani, and Kiyoshi Morita: Accuracy of Blood-Glucose Measurements Using Meters and Arterial Blood Gas Analyzers in Critically III Adult Patients: Systematic Review. Critical Care 2013, 17:R48
- 8. Arnette Rebel, M.D., Marke A. Rice, M.D., and Brenda G. Fahy, M.D., FCCM; The Accuracy of Point-of-Care Glucose Measurements. Journal of Diabetes Science and Technology: Volume 6, Issue 2, March 2012
- 9. Tom Van Herpe, Ph.D. and Dieter Mesotten, M.D., Ph.D.; Blood Glucose Measurements in Critically III Patients. Journal of Diabetes Science and Technology: Volume 6, Issue 1, January 2012
- 10. Centers for Disease Control and Prevention (CDC); FASTATS Hospital Utilization 2012. Revised May 31, 2013
- 11. Patient Monitoring Devices Market Report; Global Trends, Value, and Value-Volume Analysis (2011-2016). marketsandmarkets.com; Global Information, Inc.; April 2012

Additional Resources

Nichols, James; Glucose Meters in Critically III Patients: What New Guidance Means for Labs. Clinical Laboratory News, May 1, 2015

Song, Fang; Zhong, Liu-Jun; Han, Liang; Xle, Guo-Hao; Xiao, Cheng; Zhao, Bing; Hu, Yao-Qin; Wang, Shu-Yan; Qin, Chao-Jin; Zhang, Yan; Lai, Deng-Ming; Cui, Ping; and Fang, Xiang-Ming.; Intensive Insulin Therapy for Septic Patients: A Meta-Analysis of Randomized Control Trials. BioMed Research International; Volume 2014, Article 698265

Magill, Shelley; Edwards, Jonathan; Bamberg, Wendy; Beldavs, Zintars; Durryati, Ghinwa; Kainer, Marion; Lynfield, Ruth; Maloney, Meghan; McAllister-Hollod, Laura; Nadle, Joelle; Ray, Susan; Thompson, Deborah; Wilson, Lucy; and Fridkin, Scott.; Multistate Point-Prevelance Survey of Health Care Associated Infections. New England Journal of Medicine; 2014:\;370:1198-1208

Vanasse, Caitlin; Cost and Length of Stay Associated with Hospital-Acquired and Health Care-Associated Infections. Milliken Institute School of Public Health, George Washington University, December 2014

Texas Health and Human Services Commission; Potentially Preventable Complications in the Texas Medicaid Population - State Fiscal Year 2012 - Public Report. November 2013

Aston, Geri; Diabetes: Hospitals Ramping Up Inpatient Care. AHA - Health Forum, June, 1, 2013

Siegelaar SE, Barwari T, Hermanides J, et al. Microcirculation and its relation to continuous subcutaneous glucose sensor accuracy in cardiac surgery patients in the intensive care unit. J Thorac Cardiovasc Surg 2013;146:1283B9

Finfer S, Wernerman J, Preiser JC, et al. Clinical review: consensus recommendations on measurement of blood glucose and reporting glycemic control in critically-ill adults. Crit Care 2013;17:229





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