MILESTONE SCIENTIFIC®

Investor Presentation
November 2020

NYSE: MLSS

Safe Harbor Statement

This presentation contains forward-looking statements regarding the timing and financial impact of Milestone's ability to implement its business plan, expected revenues, timing of regulatory approvals and future success. These statements involve a number of risks and uncertainties and are based on assumptions involving judgments with respect to future economic, competitive and market conditions, future business decisions and regulatory developments, all of which are difficult or impossible to predict accurately and many of which are beyond Milestone's control. Some of the important factors that could cause actual results to differ materially from those indicated by the forward-looking statements are general economic conditions, failure to achieve expected revenue growth, changes in our operating expenses, adverse patent rulings, FDA or legal developments, competitive pressures, changes in customer and market requirements and standards, and the risk factors detailed from time to time in Milestone's periodic filings with the Securities and Exchange Commission, including without limitation, Milestone's Annual Report for the year ended December 31, 2019. The forward-looking statements in this presentation are based upon management's reasonable belief as of the date hereof. Milestone undertakes no obligation to revise or update publicly any forward-looking statements for any reason.

Company History

Milestone Scientific Inc. (MLSS) is a leading medical research and development company that designs and patents innovative injection technology. Milestone's computer-controlled systems make injections precise, efficient, and virtually painless.

With 133 foreign patents and 19 US patents issued Milestone Scientific is the leader in modern injection technology

Why Enter the Epidural Market?

Market Size

Epidural procedures are one of the fastest growing procedures in the US and worldwide. It is estimated that over 11 million epidural procedures are performed each year in the US and over 30 million worldwide.

Over $5 billion is spent annually on epidural injections in the US alone. The approximate break down of epidural procedures in the US is:

- 2.4 million labor procedures out of almost 4 million births
- 9 million pain intervention steroid injections
- ~900,000 total and growing Neuroaxial Regional Blocks for hip and knee surgeries

Current Technology Being Used Today!

The technique of "single-shot" lumbar epidural anesthesia was first developed in 1921 by Spanish military surgeon Fidel Pagés, and hasn't changed significantly since.

Glass Loss of Resistance (LOR) 1946

"Modern" LOR Syringes

Innovating a New Standard of Care in Anesthesia

- Now with our patented CompuWave™ and CathCheck™ features, anesthesiologists should be able to save significant time and institutions should save significant costs
- Correlates subjective feel with objective visual and audible verification of pressure changes
- Offers real-time needle location with consistent distinction of true loss of resistance
- Builds physician confidence resulting in fewer attempts; less Dural punctures reducing complications and costs
- Accelerates procedure learning curve for residents and trainees

Welcome to the 21st Century

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Listening to Providers, Addressing Unmet Needs

- Placement of an epidural needle is difficult; Requiring 60-90 placements before reaching an adequate skill level
- 17% of failure rates are due to false loss of resistance (False Loss of resistance is when the needle enters soft tissue or fatty tissue and the provider believes it is in the epidural space when it is not) resulting in a failure to provide pain relief. This requires another attempt while the patient remains in labor and pain.
- Epidural Dural punctures are as high as 5+%. An Epidural puncture is when the Dura is breached and the needle enters into the spinal canal, causing cerebral spinal fluid to leak resulting in headaches, pain, infection, and other morbidities costing insurance companies and hospitals additional time and money.
- 20% of epidural blood patches also fail and require additional care (A blood patch is a procedure to try and repair the Dural punctures)

COMPUFLO™
EPIDURAL INSTRUMENT

Management Team

Interim CEO
Leonard Osser

President
CEO Wand Dental
Arjan Haverhals

Clinical Director
Dr. Mark Hochman

KOL and Study Author
Dr. Giorgio Capogna

CFO/COO
Joseph D'Agostino

VP, US Sales
Eric Gilbert

Over 76 years of collective commercial experience in medical with Involvement in numerous medical product launches

CompuFlo Epidural Instrument Commercial Momentum

- The CompuWave™ patented feature is allowing precise location identification of the epidural space
- Nine peer-reviewed published studies validate instrument effectiveness in identifying the epidural space
- Additional ongoing studies
- More than 2,000 epidural procedures performed worldwide including key opinion leaders
- Hospital in Italy adopts CompuFlo for all epidurals in labor and delivery
- Moving to a direct sales model in the USA
- Study on Economic Benefit

New Clinical Trial Finds CompuFlo® Instrument a Safe Alternative to Current Standards of Care

ANESTHESIA & ANALGESIA
NOV 2019

- 160 labor and delivery (L&D) patients – 400 total
- 99 % effective in identifying epidural space on first attempt
- 14 % more successful in patients with high BMI
- L&D epidurals resulted in 0 dural punctures, loss of resistance 4 (old technique being used today)
- Procedure time reduced by 1 minute with CompuFlo

Objective Epidural Space Identification Using Continuous Real-Time Pressure Sensing Technology: A Randomized Controlled Comparison With Fluoroscopy and Traditional Loss of Resistance

Ralf E. Gebhard, MD,* Tobias Moeller-Bertram, MD,† Douglas Dobecki, MD,‡ Feyce Peralta, MD,§ Evan G. Pivalizza, MBChB, FFASA,‖ Madhumani Rupasinghe, MBBS, FRCA,‖ Sanja Ilic, MD,¶ and Mark Hochman, DDS#

BACKGROUND: Performance of epidural anesthesia and analgesia depends on successful identification of the epidural space (ES). While multiple investigations have described objective and alternative methodologies to identify the ES, traditional loss of resistance (LOR) and fluoroscopy (FC) are currently standard of care in labor and delivery (L&D) and chronic pain (CP) management, respectively. While FC is associated with high success, it exposes patients to radiation and requires appropriate radiological equipment. LOR is simple but subjective and consequently associated with higher failure rates. The purpose of this investigation was to compare continuous, quantitative, real-time, needle-tip pressure sensing using a novel computer-controlled ES identification technology to FC and LOR for lumbar ES identification.
METHODS: A total of 400 patients were enrolled in this prospective randomized controlled noninferiority trial. In the CP management arm, 240 patients scheduled to receive a lumbar epidural steroid injection had their ES identified either with FC or with needle-tip pressure measurement. In the L&D arm, 160 female patients undergoing lumbar epidural catheter placements were randomized to either LOR or needle-tip pressure measurement. Blinded observers determined successful ES identification in both arms. A modified intention-to-treat protocol was implemented, with patients not having the procedure for reasons preceding the intervention excluded. Noninferiority of needle-tip pressure measurement regarding the incidence of successful ES identification was claimed when the lower limit of the 97.27% confidence interval (CI) for the odds ratio (OR) was above 0.50 (50% less likely to identify the ES) and *P* value for noninferiority <.023.
RESULTS: Demographics were similar between procedure groups, with a mild imbalance in relation to gender when evaluated through a standardized difference. Noninferiority of needle-tip pressure measurement was demonstrated in relation to FC where pain management patients presented a 100% success rate of ES identification with both methodologies (OR, 1.1; 97.27% CI, 0.52–8.74; *P* = .021 for noninferiority), and L&D patients experienced a noninferior success rate with the novel technology (97.1% vs 91%; OR, 3.3; 97.27% CI, 0.62–21.54; *P* = .019) using a priori noninferiority delta of 0.50.
CONCLUSIONS: Objective lumbar ES identification using continuous, quantitative, real-time, needle-tip pressure measurement with the CompuFlo Epidural Computer Controlled Anesthesia System resulted in noninferior success rates when compared to FC and LOR for CP management and L&D, respectively. Benefits of this novel technology may include nonexposure of patients to radiation and contrast medium and consequently reduced health care costs. (Anesth Analg 2019;129:1319–27)

KEY POINTS
- **Question:** Is continuous quantitative real-time needle-tip pressure measurement noninferior to current standards of care (fluoroscopy and loss of resistance) for epidural space identification?
- **Findings:** Needle-tip pressure measurement using a novel computer-controlled pressure sensing technology was found to be noninferior to fluoroscopy and loss of resistance regarding success rates, procedural times, and complications.
- **Meaning:** Needle-tip pressure sensing is a potential alternative to current standards of care and may avoid exposure to radiation when compared to fluoroscopy and offer greater accuracy when compared to loss of resistance.

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Northwestern University

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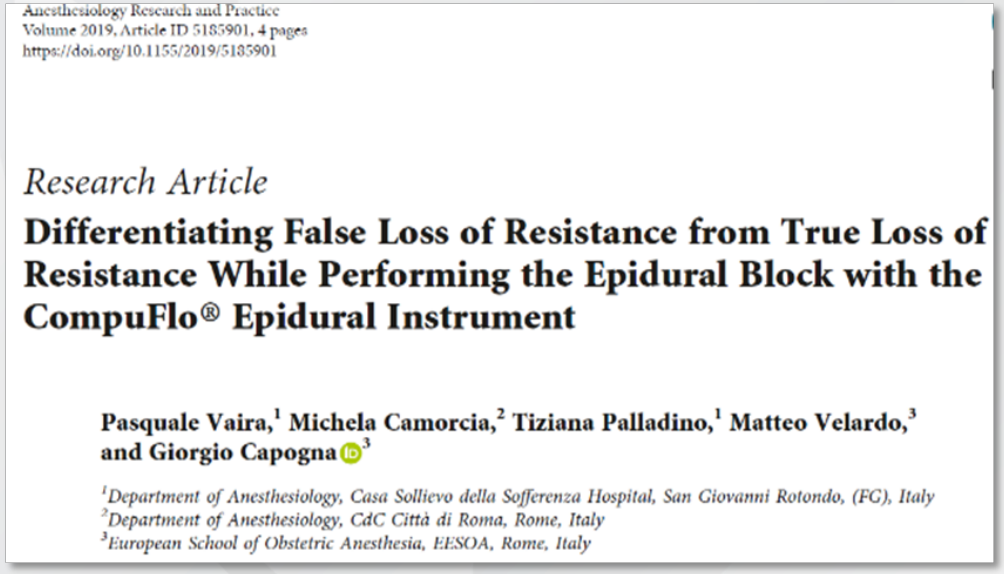
Anesthesiology Research & Practice Jan 2019

- 120 patient clinical study
- CompuFlo blocks performed successfully with no complications
- Consistent differentiation of true loss of resistance



Anesthesiology Research and Practice
Volume 2019, Article ID 5185901, 4 pages
https://doi.org/10.1155/2019/5185901

Research Article

Differentiating False Loss of Resistance from True Loss of Resistance While Performing the Epidural Block with the CompuFlo® Epidural Instrument

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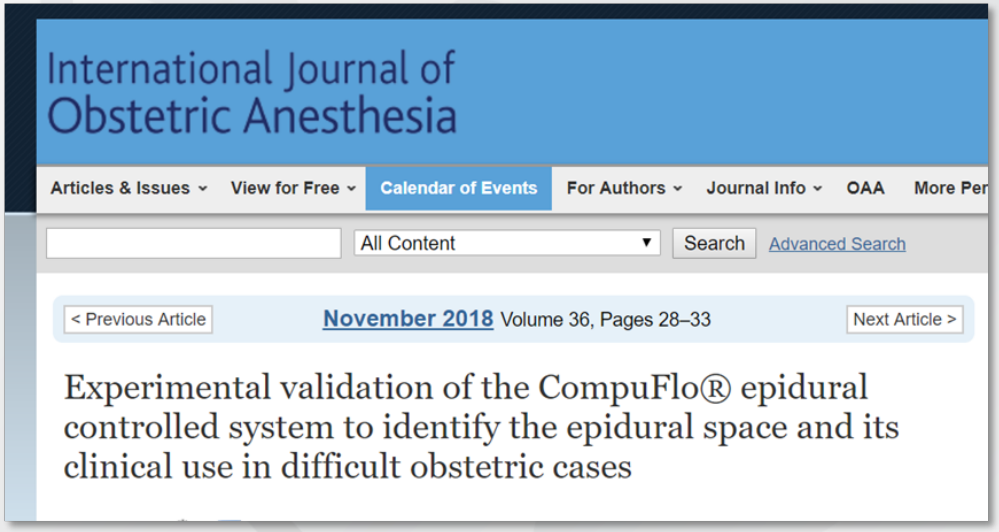
[3]European School of Obstetric Anesthesia, EESOA, Rome, Italy

"The pressure sensing innovation in CompuFlo offers a more objective, reliable and simpler way to identify the epidural space. This confidence in recognizing a true loss of resistance can help improve the efficacy of anesthesia, reduce complications, and speed the procedure learning curve for trainees."

Dr. Giorgio Capogna
Director of the European School of Obstetric Anesthesia and Maternal Neonatal Simulation Center

International Journal of Obstetric Anesthesia Nov 2018

- Objective identification of ligamentum flavum and epidural space
- Difficult blocks rescued in a single attempt
- Differentiation of true loss of resistance for accurate epidural placement



"We [have] validated the CompuFlo device as a means of adequately identifying the ligamentum flavum and the epidural space. "

"Our preliminary findings suggest that it could assist the physician in training when performing epidural insertion."

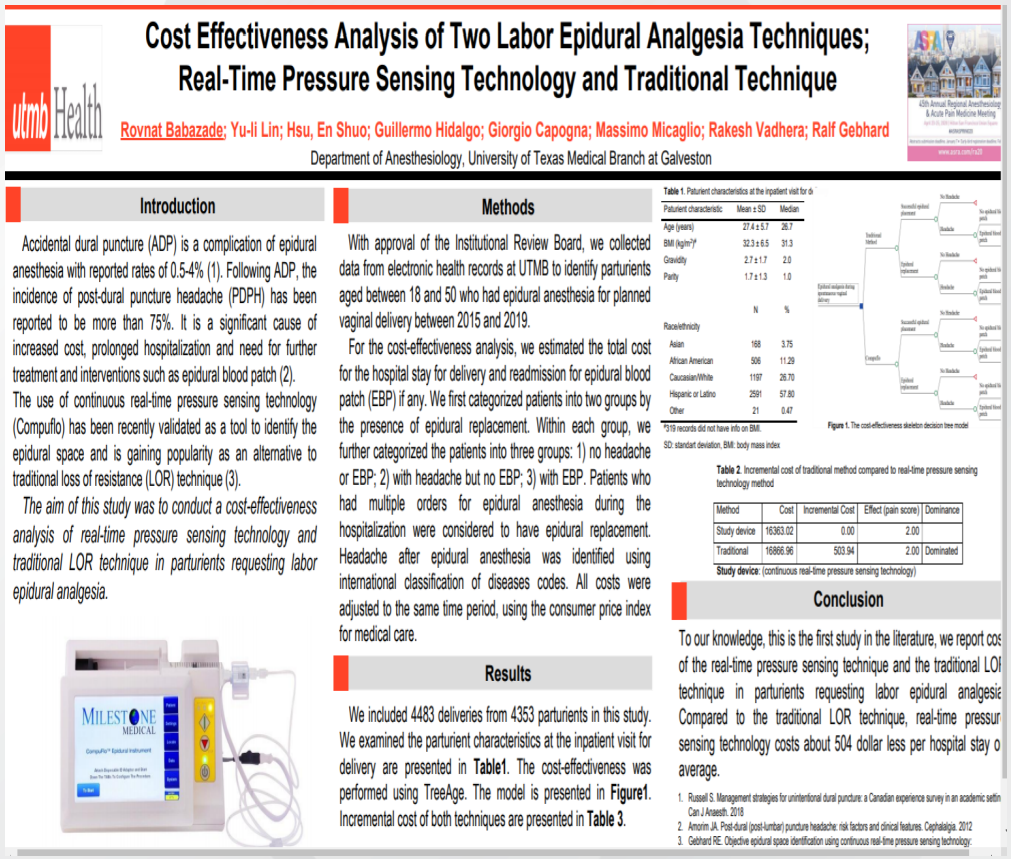
Study investigators from the Citta di Roma Hospital and Careggi Hospital:

Dr. Giorgio Capogna,
Dr. Michela Camorcia
Dr. Alessandra Coccoluto
Dr. Massimo Micaglio
Dr. Matteo Velardo

Cost Savings Studies Underway

- Large academic institution completed **a definitive economic study** aimed to prove:
  - Significant reduction of accidental Dural punctures
  - Associated cost reduction
- One anesthesiologist **completed over 500 CompuFlo epidurals**, reporting no Dural punctures
- **KOL relationship development** in progress in France, Spain, Germany, UK, Belgium, Italy and USA

Cost Savings of More Than $500 Per Hospital Stay on Average



Cost Effectiveness Analysis of Two Labor Epidural Analgesia Techniques; Real-Time Pressure Sensing Technology and Traditional Technique

Rovnat Babazade; Yu-li Lin; Hsu, En Shuo; Guillermo Hidalgo; Giorgio Capogna; Massimo Micaglio; Rakesh Vadhera; Ralf Gebhard

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Introduction

Accidental dural puncture (ADP) is a complication of epidural anesthesia with reported rates of 0.5-4% (1). Following ADP, the incidence of post-dural puncture headache (PDPH) has been reported to be more than 75%. It is a significant cause of increased cost, prolonged hospitalization and need for further treatment and interventions such as epidural blood patch (2).

The use of continuous real-time pressure sensing technology (Compuflo) has been recently validated as a tool to identify the epidural space and is gaining popularity as an alternative to traditional loss of resistance (LOR) technique (3).

The aim of this study was to conduct a cost-effectiveness analysis of real-time pressure sensing technology and traditional LOR technique in parturients requesting labor epidural analgesia.

Methods

With approval of the Institutional Review Board, we collected data from electronic health records at UTMB to identify parturients aged between 18 and 50 who had epidural anesthesia for planned vaginal delivery between 2015 and 2019.

For the cost-effectiveness analysis, we estimated the total cost for the hospital stay for delivery and readmission for epidural blood patch (EBP) if any. We first categorized patients into two groups by the presence of epidural replacement. Within each group, we further categorized the patients into three groups: 1) no headache or EBP; 2) with headache but no EBP; 3) with EBP. Patients who had multiple orders for epidural anesthesia during the hospitalization were considered to have epidural replacement. Headache after epidural anesthesia was identified using international classification of diseases codes. All costs were adjusted to the same time period, using the consumer price index for medical care.

Results

We included 4483 deliveries from 4353 parturients in this study. We examined the parturient characteristics at the inpatient visit for delivery are presented in **Table1**. The cost-effectiveness was performed using TreeAge. The model is presented in **Figure1**. Incremental cost of both techniques are presented in **Table 3**.

Table 1. Paturient characteristics at the inpatient visit for d

Paturient characteristic	Mean ± SD	Median
Age (years)	27.4 ± 5.7	26.7
BMI (kg/m²)*	32.3 ± 6.5	31.3
Gravidity	2.7 ± 1.7	2.0
Parity	1.7 ± 1.3	1.0
	N	%
Race/ethnicity		
Asian	168	3.75
African American	506	11.29
Caucasian/White	1197	26.70
Hispanic or Latino	2591	57.80
Other	21	0.47

*319 records did not have info on BMI.

SD: standart deviation, BMI: body mass index

Figure 1. The cost-effectiveness skeleton decision tree model

Table 2. Incremental cost of traditional method compared to real-time pressure sensing technology method

Method	Cost	Incremental Cost	Effect (pain score)	Dominance
Study device	16363.02	0.00	2.00	
Traditional	16866.96	503.94	2.00	Dominated

Study device: (continuous real-time pressure sensing technology)

Conclusion

To our knowledge, this is the first study in the literature, we report cos of the real-time pressure sensing technique and the traditional LOI technique in parturients requesting labor epidural analgesia Compared to the traditional LOR technique, real-time pressur sensing technology costs about 504 dollar less per hospital stay o average.

1. Russell S. Management strategies for unintentional dural puncture: a Canadian experience survey in an academic settin Can J Anaesth. 2018
2. Amorim JA. Post-dural (post-lumbar) puncture headache: risk factors and clinical features. Cephalalgia. 2012
3. Gebhard RE. Objective epidural space identification using continuous real-time pressure sensing technology.

- Department of Anesthesiology, University of Texas Medical Branch at Galveston
- **Objective:** Cost effectiveness analysis of CompuFlo with real-time pressure sensing technology and traditional LOR technique in parturients requesting labor epidural anesthesia
- 4483 deliveries from 4353 parturients were included in the study
- **Conclusion**: CompuFlo costs about $504 less per hospital stay on average
- For a hospital with 6000 epidural procedures per year, potential cost savings could be 3 million dollars

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US Sales

Sales Strategy

- Establish CompuFlo as the preferred procedure using the cost saving analysis
- Moving to a direct sales force with clinical support personnel
- On October 13th, 2020, the company announced it has been awarded a group purchasing agreement for the CompuFlo® Epidural System and CathCheck™ with Premier effective November 1st, 2020. It provides enhanced access to Premier's members and should help accelerate our mission to become the standard of care.
- Over 200 physician demos completed in over 16 hospitals
- Given the significant reduction of time that CathCheck™ affords anesthesiologists, we believe that this will be our first point of entry into the US hospital market.

International Sales

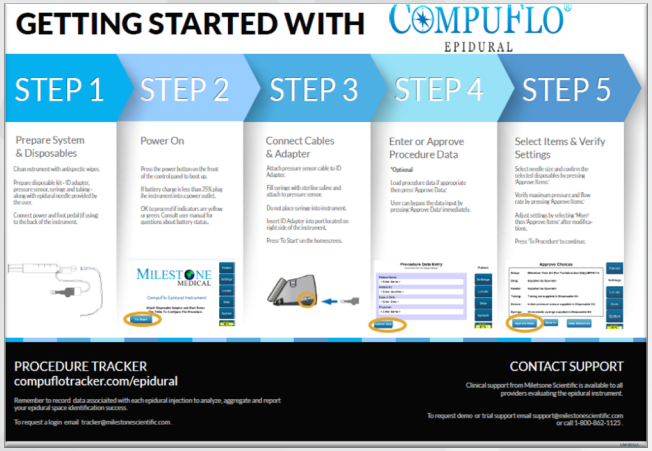
- Addition of MOVI Group in Italy
  - 10 instruments purchased
  - 28 sales agents in the field
  - 1 dedicated product manager, 3 regional managers
  - First sale by MOVI to Ospedale “Pugliese Ciaccio” di Cantanzaro, hospital in Italy
- Agreement with new Croatian distributor, EMA d.o.o.
  - 3 instruments purchased
  - Trials in 4 hospitals
- Sales to Algeria, Diagal
  - 6 instruments
- Lebanon distributor, Sterimed
  - Presented CompuFlo at 3 congresses
  - Trials in 2 University Hospitals in progress
- MOU with Russian distributor, REAN
  - 1 demo instrument sold to investigate market size and potential
  - Presented at 4 congresses

Marketing

- Refined market messaging to providers
- Invested in US live birth data by hospital for sales targeting
- Developed Cost Calculator App for sales team
- Launched a Commercial Procedure Tracker & Reporting Tool for loaner trials
- Updated marketing and sales brochures
- Initiated Digital Marketing Strategy
- New packaging concept including preassembled disposables
- Developed CompuFlo Trainer product to target simulation Labs & Medical Training Centers
- Launched CompuWave™ and CathCheck™ features

Marketing Collateral

Product Brochure



Quick Start Guide

Video Animation

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Beyond Epidural:
The Medical Opportunity

Catheter Check

- ✓ Now with our patented CompuWave™ technology the CompuFlo Epidural Instrument can now check catheters in 1-2 minutes not 20-40 minutes.

Thoracic

- ✓ High-risk nature of procedure; 3 – 5 % of all epidurals, Study currently underway.

Peripheral Nerve Block

- ✓ Received peripheral nerve block patent

Intra-articular

- ✓ Large worldwide market for injections into the joints

Botox

- ✓ Received US Patent in April 2020

Business Plan Summary/Strategy

- With the market and individual hospital systems all having different criteria and purchasing models, we will have 3 different sales strategies.

  1. Sell the CompuFlo instrument and disposables.

  2. Consign the CompuFlo instrument and upcharge the disposables.

  3. Lease the CompuFlo instrument and disposables, we include the instrument and a minimum number of disposables into a monthly payment. More disposables can be purchased if they exceed the minimum.

- The strategy is to accommodate the different hospital systems purchasing procedures. If consigned or leased it is a different process and often easier and less time consuming and falls into a different budget. Often a less time consuming process is available if the product is consigned or leased to a hospital.

Milestone Scientific- Market Re-Cap

Epidural is one of the fastest growing segments in Medicine

- 11 million performed in the US and 30 million worldwide
- 2.4 million Labor and Delivery-US
- 9 million nerve blocks for pain intervention-US
- 900,000+ for pain blocks in Hips and Knees- US
- Over a $5+ Billion Dollar Market in the US and growing

Peripheral Nerve Blocks (PNB)

- Globally there are 41 million Peripheral Nerve blocks performed, US market is expected to reach $430 Million by 2027.
- Study performed by Dr. Oliver Choquet at the Lapeyronie University Hospital-Montpellier concludes that high injection pressure during PNB procedures should be avoided and pressure monitoring should be sensitive and easy to use to improve the safety of PNB
- With the passing of the Substance Abuse Disorder Prevention That Promotes Opioid Recovery and Treatment for Patients and Communities (SUPPORT) act, physicians are using more pain blocks to reduce the opioid use post surgery.

Insurance companies now require at least 3 pain injections for prognostic and diagnostic workup prior to approving surgery in orthopedics and spine.

Two New Features added to the CompuFlo Epidural Instrument

With the addition of the patented CompuWave™ technology we can now not only verify epidural placement but also confirm catheter placement in real time with the patients' pulse

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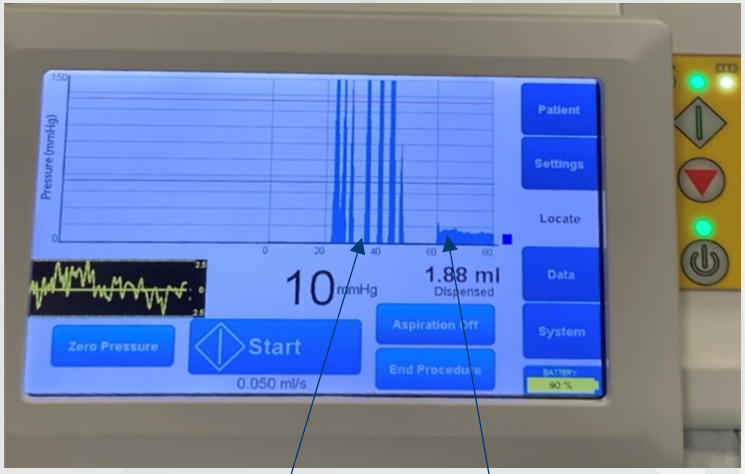
What Do These New Features Mean?

When performing an epidural the CompuFlo™ instrument objectively identifies the False Loss of Resistance and True Loss of Resistance.

CompuWave™ allows the practitioner to also verify that the needle is in the epidural space when the pulsatile waveform is displayed



False Loss of Resistance

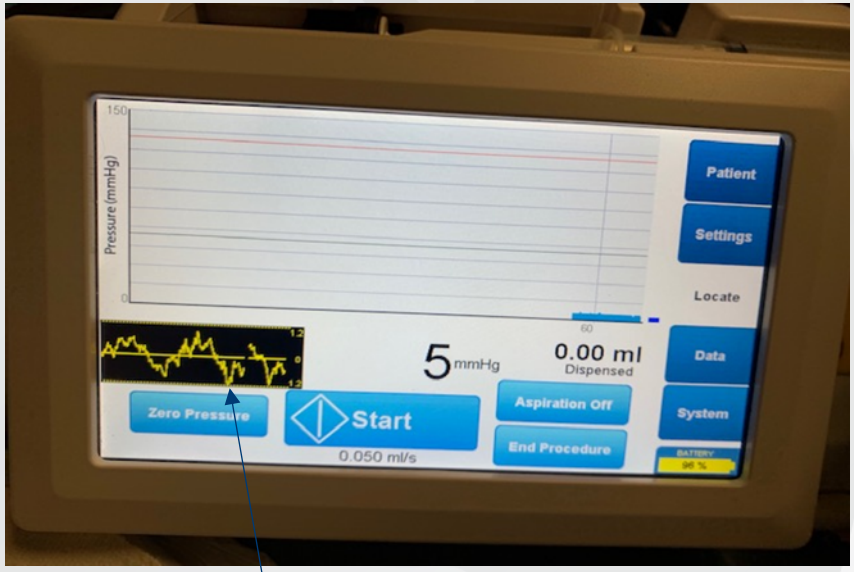
True Loss of Resistance

What Do These New Features Mean?

Until now clinicians check catheters by administering a bolus of anesthetic to a patient and are then required to wait 20-40 minutes to see if patient's pain has subsided, if it doesn't the catheter has to be removed and another epidural must be performed.

With **CathCheck™** they can, in 1-2 minutes identify if the catheter is in place or has become dislodged from the epidural space.

This saves considerable time and money and provides better patient care.



If the Catheter is in the epidural space the waveform indicates it. If it's not that will be indicated as well.

The Importance of CathCheck™

The **CathCheck™** feature is unique to Milestone Scientific…the ability to check catheters is reduced to 1-2 minutes from 20 - 40 minutes.

CathCheck™ will allow much faster verification time of the catheter placement. Patients are often moved multiple times daily which can lead to the catheter being dislodged from the epidural space. The dislodgement of the catheter prevents the patients from receiving pain relief. CathCheck™ is significantly reducing catheter placement verification time.

CathCheck™'s ability for fast verification will considerably reduce anesthesiologists' time which will translate into considerable savings to the institution and better patient care.

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Thank You!

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