MILESTONE SCIENTIFIC®

# Investor Presentation
# October 2021

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.*

# Executive Summary

- Milestone Scientific Inc. (MLSS) is a leading developer of computerized drug delivery instruments that provides virtually painless and precise injections.
- MLSS has now entered into a significant expansion in the world-wide dental market.
- Based on MLSS fundamental technology of pressure force feedback with the additional patented technology of pulse wave which given MLSS an additional 20 years of patent protection, MLSS will be pursuing a number of different areas in the medical sector, which will comport with MLSS razor/razor blade business model.
- This presentation addresses the medical and dental business and how MLSS believe it can improve healthcare outcome at lower costs.

# 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

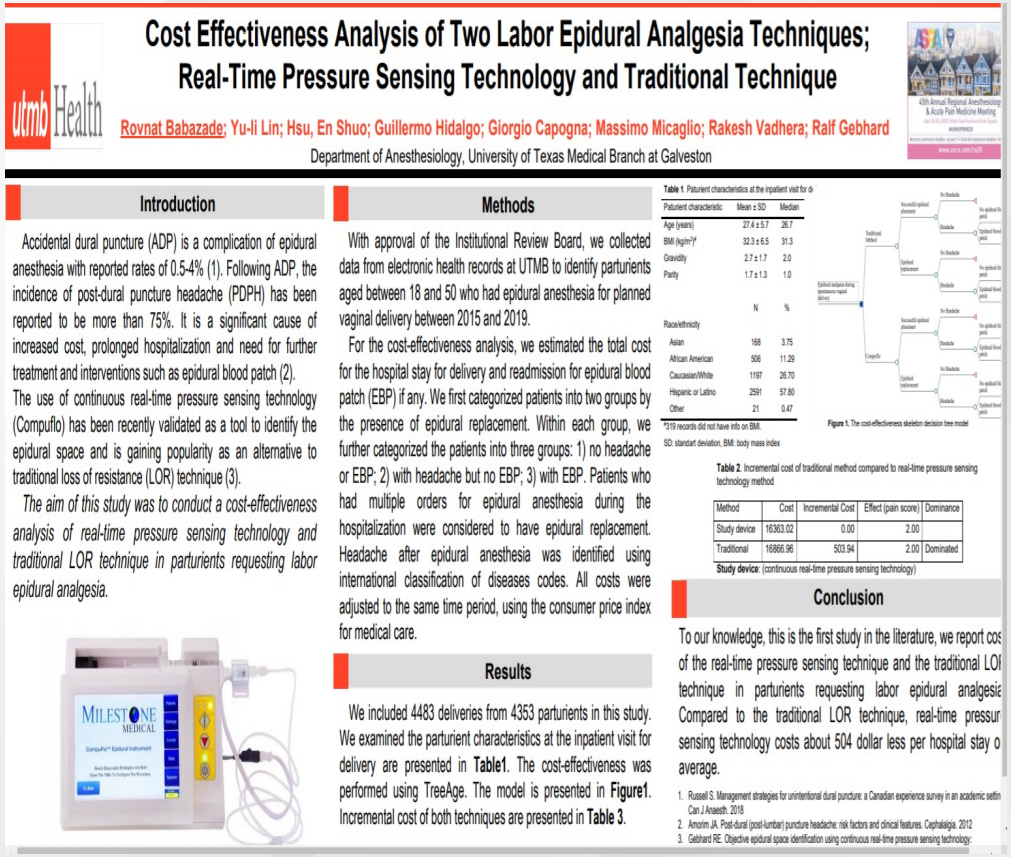
"Modern" LOR Syringes

# 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

# 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**

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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. 2016
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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# 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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# 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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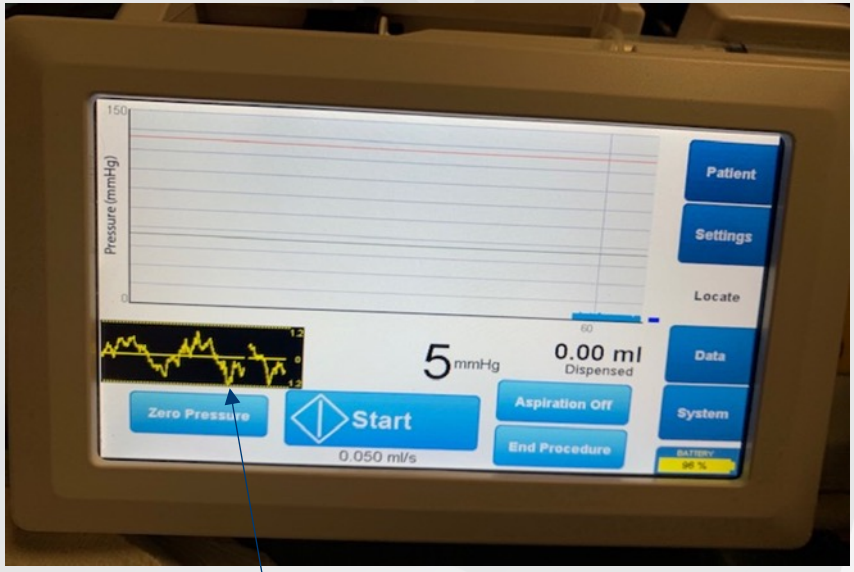
# What Do These New Features Mean?

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.

# 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.

# 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

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# Thank You!

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