



AVANCEN[®]

IMPROVING PATIENT CARE AT THE BEDSIDE*

Pioneering Patient
Centered Care





Pioneering Patient Centered Care

Avancen Corporation is on a mission to change the way PAIN medication is dispensed at the patient's bedside. A scientific and technological innovation, the Medication on Demand (MOD[®]) device system improves quality of care, transforms pain management, and offers autonomy to those affected by pain.

Every morning as she was seeing her patients at the hospital, Sharon Conley, An MD specializing in oncology and hematology and a PhD biochemist would encounter the same situation: a patient in pain because the nurses did not have the time to deliver their medication. Unable to fathom why the IV PCA pump process had not yet been automated for oral pain medication, she decided to reach out to medical device companies about developing a product that would change patient care.

Conley's frustration would find no salvation from the medical companies. They don't develop products from scratch; never mind products that aim to change the paradigms of health care. After filing a patent and attempting to give the patent away to the same companies she approached about development, the interest remained non-existent. Conley had had enough. She left her practice and devoted her time to the MOD device and the inception of the Avancen MOD Corporation.



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“The IV device had been on the market for several years, and I thought there would be one for oral pain tabs,” Conley said. “But when I discovered there wasn’t one, I decided patients really needed this. This was the genesis of the development of our current device on the market.”

Using her research background as a biochemist to gain the funding to get started, Conley and her team gathered data from patients and the current procedures within medicine to change paradigms in health care by demon-

strating that her breakthrough is better than the current method.

“The existing approach in this case is the manual delivery of pain medicine by the nursing staff when the patient asks for it versus having a medical device at the bedside that the patient can access when they need it,” she said. “We have demonstrated through our research that patients who use this device compared to the manual delivery of medication simply do better.”

“This creates evidence-based care,” Conley continued. “If you can demonstrate scientifically and through your research that this approach is better than the existing approach, ultimately your approach will be adopted.”

in the cause and common goal. Working for part equity and part pay, the seven full-time employees are flanked by over 40 part-time employees ranging from nurses to software engineers.

AUTONOMOUS APPROACH

Backed by a bevy of high-level professionals, Avancen’s executive staff brings imagination, innovation and expertise from many disciplines spanning medicine, business, finance, engineering and technology. An interesting dynamic to say the least, the relationships are collaborative, with everyone deeply rooted

Driven, in part, by a mission to provide new ideas and technology to improve patient care, comfort and satisfaction, for Ned Buffington, the chief executive officer of Avancen Corporation, it’s all about looking at the numbers and facts when realizing the profound impact that increased nursing attention has on the overall wellbeing of the patient.





“The patients want someone in the healthcare system to care about them,” he said. “It takes 10.9 minutes for a nurse getting called, checking the record and giving a single pill to the patient. When a nurse has five or six patients, that nurse spends over a third of their shift being a pill delivery person.”

“When they deliver that pill, because it’s on demand and disruptive to their schedule, they don’t have time to spend with the patients,” he continued. “They’re in and they’re out. When a device can free up a third of a nurse’s shift, they regain time and are now able to spend it with the patient and focus more on patient centered care.”

With Buffington taking care of the team-building and money raising aspect of the company, it was Conley’s first-hand experience and observations working in hospitals that helped her realize dire changes were necessary in a variety of different ways.

“In terms of technology, patient care by the bedside in acute care hospitals has not changed much in the last 25

years,” she said. “Patients get admitted into the facility, and are given some sort of device to contact nursing staff. But they don’t have a lot of power over their care.”

“The MOD® device is the epitome of patient-centered care because it puts the patient in charge,” Conley continued. “Spending as much time as I did in hospitals with my patients and seeing the antiquated and ineffective processes in bedside care led me to develop the MOD device and Avancen. Our data with our MOD system shows that when you give the patient more autonomy, they do better.”

THE MOD® DEVICE

A wireless patient-controlled oral pain management system, the MOD provides hospi-



**PRECISION QUALITY
PRODUCT COMPLIANCE
CUSTOMER SATISFACTION**

ISO

Custom Injection Molder

Nylacarb is always committed to producing the highest quality products. We offer Integrated Total Quality that encompasses molding parameters, material specification, part inspection and mold maintenance. Continuous communication with the customer ensures product compliance and customer satisfaction.

NC Nylacarb Corporation

1725 98th Avenue, Vero Beach, FL 32966
P: (772) 569-5999 | F: (772) 569-5922
E: nylacarb@fdn.com | W: www.nylacarb.com



William (Bill) S. Westin, CFO



Ned Buffington, CEO



Samara Bay, CCO





Sharon Conley, CMO



tals, healthcare professionals and patients with a better way to manage pain, while delivering multiple benefits to users. Using this device saves precious nursing time and leads to better pain control, better pain satisfaction, and better pain outcomes.

Met by red tape, there were many hurdles for Avancen to overcome. After securing an NIH Grant, the team had to develop a prototype in order to fulfill the terms of the grant.

“Through some connections, we had software and hardware engineers design and build a basic prototype to use during initial clinical trials,” Buffington said. “We took the data we gathered from the trials and produced - af-

ter much iteration – a first production of the original MOD device, which you hooked to a computer with a USB and that’s how they were programmed.”

Avancen continued to acquire customers and feedback on how to improve or change the device by using the same prototype for a few years. Soon after, the company filed patents on the device, receiving their Federal Drug Administration (FDA) clearance. A turning point in the product life cycle, Buffington, Conley and the company engineers soon realized a wi-fi MOD was a necessity.

“One of the great features of the MOD® device is that it collects pain information from



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BEFORE CLOSING COVER

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READY



0 1 2 3 4 5 6 7 8 9 10



the patient,” Conley said. “There is a pain scale from 0-10 on the front of the device, and they touch the button that relates to their pain level and it turns on the radio frequency identification reader in the device to recognize the patient bracelet and if that device recognizes the bracelet, it will dispense a dose of medication.”

“The ability of the modern software to obtain the patient pain database and express it numerically and graphically, is another great feature,” she continued. “The fact that we provide the software to display this for the treatment team and take the data and send it to the electronic medical record is unique because there are no other devices for pain management in today’s hospitals that reflect this kind of database.”

THE FUTURE

A collective purpose and shared vision is Avancen’s greatest asset. Looking to not only build a profitable venture but also improve patient care at the bedside, the unrivaled experience and expertise afforded by the device and the human capital responsibility for making it a reality, continues to define their movement going forward.

“There is a significant need for this technology in all healthcare facilities around the world that practice state of the art acute care and medicine,” Conley said. “Our goal is to expand into the EU and Canada. This technology will be used in the global healthcare market, not just the United States. Patient-centered care and the ability to involve patients is a focus that spans the globe.”

As the global shortage of nurses continues to rise, looking for ways to improve efficiency is crucial. With capabilities to put the patient in control and save nursing time, Avancen and the MOD are leading the way in an innovative and groundbreaking way. With a big push towards continuity of care between hospitals and rehab facilities, and the ongoing development of the company’s new ambulatory device, demand from all angles is a definite certainty.

“There are many ways we plan to expand our market from acute care into global hospital markets and beyond,” Conley said. “We have a lot left to do.”



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