

# medgizmos

Medical Device/Technology **Multimedia** Reviews

Vol:1 No:2 Summer, 2021

## Summer, 2021



- New Welch Allyn Tools
  - Virtual Scribe
  - Pediatric Telehealth System
  - Medical Waste Machine
- ..... and more !*



# Welcome to.....

# medgizmos



## ***The Great Unmasking....***

As I write this in late July of 2021, about 49% of Americans are fully vaccinated against Covid-19. It seems that we have a long way to go before the pandemic will be declared “over”. While the FDA have indicated that fully vaccinated individuals can cautiously unmask, there is an uptick in Covid-19 infections throughout the country, with the delta variant responsible for the current wave.

PPE, hand sanitizer, and toilet paper are now plentiful, and children are expected to return to school, in person, in the fall. We can now attend movies and concerts, without social distancing or wearing masks. Life is improving!

Slowly we are overcoming the SARS-CoV-2 pandemic. Our vaccines, will transition from “emergency use authorization”, to full FDA approval, and eventually children under 12 years of age will be able to receive Covid-19 vaccination.

I anticipate that we will eventually have oral antivirals that will prove effective against SARS-CoV-2, which will limit spread within families and schools, while expediting resolution of symptoms, much like oseltamivir does for influenza A and B. I also expect there will be more point of care Covid-19s tests being used in the primary care setting, By expediting diagnosis, we can expediting the quarantining of patients, and facilitate contact tracing,

One expected consequence of the reduction in utilization of masks and social distancing is the return of infections we have not seen for some time. In my pediatric practice we are now seeing children with respiratory infections, hand foot and mouth disease, and my colleagues across the country are beginning to see influenza.

## **In this issue**

We discuss reviews and interviews presented on the Medgizmos web site. These include a wonderful on-line course that will help physicians code according to the 2021 CMS E/M guidelines, a tablet based program for children with ADHD and anxiety. Also presented is the “Dragon Ambient eXperience” that provides a cost effective, iphone based system that functions as a medical scribe, and the Medical Waste Machine which is an inexpensive way to process medical sharps in your office.

**Please stay tuned.....**

# EM University



Effective January 1 this year, the Centers for Medicare & Medicaid Services (CMS), implemented a new evaluation and management (E/M) coding system for outpatient visits. It was the first change in 25 years, developed to ease the documentation burden on medical providers. Prior to 2021, billing for an outpatient visit required a very complicated mixture of documenting appropriate elements of the patient's history and physical along with the medical decision-making



making (MDM) associated with the visit or the time spent counseling the patient or coordinating

care. The updated CMS guidelines are based only on 1) a clearer method of assigning MDM or 2) a new methodology for assigning a time component to the visit on the date of service. As they did previously, CMS recognizes 4 levels of MDM (straightforward, low complexity, moderate complexity, and high complexity). MDM quantifies the complexity of establishing a diagnosis and/or selecting management options by measuring: 1) The number and complexity of problems addressed at the encounter, 2) The amount and/or complexity of data to be reviewed and analyzed, and 3) The risk of complications and/or morbidity with patient treatment. Alternatively once can also bill by the time spent. Indicating the time associated with an encounter is an alternative method of determining the level of the visit. For many physicians, using time to

determine a level of service is much less confusing compared to assigning a level of service using MDM. In contrast to the pre-2021 method of assigning time associated with the face-to-face time spent counseling the patient or coordinating care, time now consists the time preparing to see the patient, obtaining a history, performing an examination, ordering medication or tests, coordinating care, communicating results to the patient.

I've always depended on EMUniversity.com learn about the nuances of medical coding. Peter Jensen is a physician and certified coder and does an excellent job of explaining the new system in a clear and concise way. The online course is about \$300 and you earn CME credits for participation. Highly recommended!

# The New Tools of the Trade



Primary care physicians have been regular users of Welch Allyn diagnostic sets for decades.

In 2008, Welch Allyn introduced the MacroView otoscope with improved magnification and increased field of view compared to traditional otoscopes. At the time it was a major improvement upon previous versions. It provided for a nearly complete view of the tympanic membrane, included a rotating wheel to adjust focus, used a longer lasting halogen bulb, and its optics produced a cool light without reflections. Three years later the company introduced the PanOptic ophthalmoscope with a much wider (5x) view of the fundus compared to traditional ophthalmoscopes.

In 2015 Hillrom acquired Welch Allyn, and this year they are upgrading their diagnostic tools!

The new MacroView Plus Otoscope uses LED lighting and improved optics to provide up to 3x the view of traditional otoscopes, a focus free design, and the capability of attaching to a smartphone with a SmartBracket accessory so that tympanic membrane images can be captured and magni-

fied via their iExaminer application. In addition, the MacroView plus can be used with Hillrom's new Lithium Ion Plus battery handle that is charged via a USB-C port. They have also released new Lumiview clear single use specula, that provide up to 8x brighter views compared to those provided by a black speculum. Lastly, their new PanOptic Plus ophthalmoscope uses longer lasting LED lamps to provide up to a 20x larger viewing area when compared to the view through a standard scope. It also integrates their Quick Eye alignment technology to help direct patient gaze during the examination. Online the handle sells for \$286, ophthalmoscope for \$841, and Otoscope for \$455, and the Lumiview specula - a bag of 6800 for sells for \$342. A new diagnostic set (new Lithium Ion Plus battery handle, MacroView Plus otoscope and the PanOptic Plus Ophthalmoscope) is selling online for \$775 without the SmartBracket and \$830 with the SmartBracket.



## The Mightier Program: For Kids with Anxiety and ADHD, and Oppositional Defiant Disorder



An alternative to medication management of ADHD has always involved occupational therapy as well as behavioral therapy, in addition to modification of the school and home environments to better accommodate the needs of the child. The problem with these modalities for ADHD is that it is often difficult to find a provider that participates in a family's insurance and it can take months to see results.

Recently a parent informed me about the Mightier program that was developed at Boston Children's Hospital. It is a Biofeedback program using "Anger Control Therapy" (ACT) that teaches children coping and calming skills that can yield tangible results in a matter of months. It is appropriate for children with ADHD, oppositional defiant disorder, and anxiety disorders. Children are provided with a gaming tablet and a wrist device that records heartrate. As described in the video the child plays video games while wearing the wristband heartrate monitor. As the heartrate increases the difficulty of the games increases as well and when the heartrate reaches a certain level, the game is interrupted, and the child is taught a variety of coping skills from a cartoon character. In cognitive behavioral therapy teaches a child is to identify and label thoughts and emotions, and utilize coping strategies to prevent or treat the consequences of these. In contrast the Mightier program teaches children to implement coping strategies when they recognize the physiologic conse-

quence of negative thoughts and emotions. ie an elevated heartrate, associated with "dysregulation." An integrated award system reinforces the adoption of coping strategies and children look forward to participating in the program.

The technology behind Mightier has been tested in four trials, including two double-blind, randomized controlled trials.

The program was developed at Boston Children's Hospital and has been commercialized. It has been used by thousands of children over 7 years and is quite affordable. It is \$40 per month, with discounts offered for pre-payment. Over the years the program has accumulated data to show that it is effect. It is directed at children age 6 and above and a child must commit to about 15 hours per week of game time to see results from the therapy.

BTW, my good friend, Dr. Mitch Frumkin appears as a ghost on my side of the screen throughout the video and asks some great questions of Emily Stone, who explained the system quite well.



# A Socially Responsible Way to Dispose of Medical Sharps: The Medical Waste Machine

For years, pediatricians have been spending thousands of dollars for eliminating their medical waste (needles and syringes, lancets, blades, etc.) by medical waste removal and mail-back companies. Presently, one company controls almost 90% of the medical waste removal business, thereby creating a situation which is almost monopolistic. As a result, prices for medical waste elimination have been rising dramatically every year with no end in sight. Also, no one should be sending untreated medical waste through the mail as it is a major liability issue.

The logical alternative is the Medical Waste Machine. This system allows medical practices of all sizes to sterilize their medical waste and convert it to ordinary waste on site. The end product is reduced by over 70%, turning it into a sterile unrecognizable amorphous block. The doctor, nurse or medical assistant is then able to throw the end product in the regular trash. The machine is inexpensive and eliminates a never ending and ever increasing cost to the business.

The Medical Waste Machine makes an important environmental contribution by not emitting any fumes or gases from the system. Therefore, there are no negative effects such as those from the incineration process of medical waste at the plants of the medical waste companies.

Liability wise, the Medical Waste Machine enables the pediatric locations to never have any med-

ical waste on their premises. On site destruction is the only way the practice can gain control over the liability that is imposed from both common law precedents and the cradle to grave liability that prevails in most states' regulations.



Therefore, by saving doctors money, eliminating their liability, which they are responsible forever ( cradle to grave ) and improving the environment, the medical waste machine offers an unequivocal number of advantages over medical waste carriers and mail back services.

In our three-provider practice, we performed this process once per week. The machine and containers are a one-time purchase, and our practice purchased plastic discs two or three times per year. The device was always reliable and did not require any repairs or replacement for the 10 years that we used the device.

While the exterior features of the

Medical Waste Machine have received some quality-of-life improvements such as an improved handle design for easy transportation and mid-cycle security, the real improvements can be seen in an overhaul of the machine's internal mechanics. A top-to-bottom redesign of the heating element and control systems allow the machine to self regulate temperature like never before. This ensures the ideal temperature for total sterilization is reached and maintained throughout the process, leading to a more reliable and cost effective solution.

For more information, please reference Medical Innovations, Inc. , Tel-508-358-8099. E-mail-[info@medicalinnovationsinc.com](mailto:info@medicalinnovationsinc.com) ; Web- [www.medicalinnovation-sinc.com](http://www.medicalinnovation-sinc.com)



# Anytime Pediatrics Telehealth Service



Pediatricians have responded to the COVID-19 by rapidly learning to perform virtual visits for patients. It is not surprising how effective these visits can be for evaluating and treating a wide variety of common medical problems. I've been doing Telehealth visits for patients for over 6 years, primarily for patients with ADHD, anxiety and depression. Parents appreciate the convenience of these visits and they require little in the way of nursing preparation. Particularly during the pandemic, virtual visits keep children and parents in their homes, and parents who are working remotely don't need time away from work.

Not surprisingly there are many conditions which are easily evaluated via virtual visits. These typically include rashes, acne and gastroenteritis. Obviously, one cannot determine whether a febrile child has an ear infection, viral infection, etc. but an experienced provider can determine how "ill" a child appears and whether observation, an emergency room or office visit is required, or a trial of an antibiotic for suspected bacterial infections is appropriate. It is even possible to perform a modified

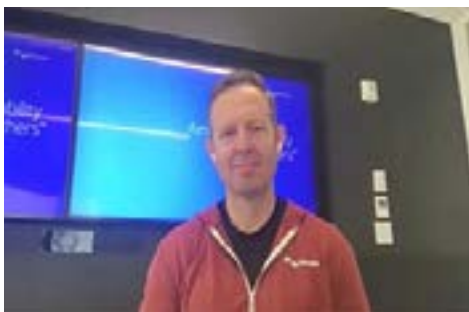
well visit (without the exam and immunizations of course), as parents can acquire inexpensive baby scales and be easily directed how to take a head circumference and length/height measurement.

Anytime Pediatrics is a Telehealth Service that provides for the unique Telehealth needs of pediatricians and their staff. Patient appointments are handled by support staff, and patients can be "virtually roomed" by office nurses or medical assistants, prior to the start of the visit with the provider. As the video shows – the interface is appealing and easy to navigate.

The service is affordable at \$150 per provider per month and there are no extra enrollment costs for administrative and clinical support staff. Although AnyTime Pediatrics began offering the service 3 years ago, the service is now being used by over 1300 pediatric providers. They offer a free demo, so you can determine if their application is the correct match for your practice.

# Virtual Scribe:

## Dragon Ambient Experience!



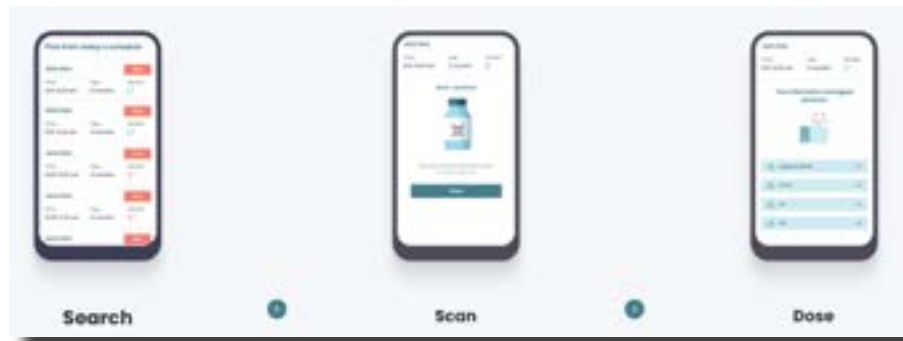
Nuance Communications, the company that pioneered voice detection software for medical practices, partnered with Microsoft in 2019 to develop an “ambient clinical intelligence” system, called the “Dragon Ambient Experience” or DAX for short. DAX uses an application running on a smartphone, either alone or in combination with a wall mounted “machine vision” camera and 16 microphone array to record a patient’s visit with a physician. The information is transferred to Nuance’s cloud based Artificial Intelligence system which analyses the captured recording and creates an office note. The note is

reviewed by Nuance technicians, and then transmitted into the physician’s electronic medical record for review and signature. Now available for use in clinics by specialists and primary care providers, in the near future DAX will be available for use in hospitals and will facilitate note creation by nurses and other support staff- as well as providers. As the system enables providers to see more patients per day, DAX virtually pays for itself.

My interview with Jared Pelo MD, Nuance’s Chief Information Officer, Ambient Clinical Intelligence, is wide ranging and discusses the evolution of DAX, as well as how it is used in a clinic environment. I think you will find the discussion interesting and even provocative – as it provides a look into healthcare’s promising “virtual” future.



# Canid Vaccine Management System



There are now 63 state, regional, and city-based vaccine registries, called Immunization Information Systems (IISs), each operating independently under its respective local and state policies. It is the responsibility of the administering site to enter the required data and it can be a burden to staff when they need to enter the data in multiple locations such as the registry, the EHR, and the patient vaccination card.

One method of speeding data entry is the integration of bar code scanning into EHRs. After receiving a shipment of vaccine, the shipment form is scanned into a vaccine inventory which is integrated into the EHR. At a patient visit the provide orders are placed and the vaccines retrieved and scanned once more. Warnings appear if the vaccine is being given too soon, not age appropriate, or issued by the wrong funding source (eg Vaccines for Children program), or the vaccine has expired. The staff manually enters the vaccine administration information into the EHR, and the information is electronically sent to the appropriate IIS. Over the next few years, it is anticipated that a growing number of EHRs will have this capability.

I can tell you that in many pediatric offices, it is very time consuming and unwieldy for staff to enter vaccine information in multiple systems. One startup company, called Canid has a novel approach to facilitating IIS entries for pediatricians. The founder and CEO of Canid, Pedro Sanchez

de Lozada, recently sat down with me to discuss IISs, and how the current IIS entry system can be improved.

Canid is establishing relationships with pediatric practices in the New York City area, where the company is located, and eventually hopes to expand services nationwide.

As discussed in the video interview, Canid helps practices acquire vaccines and has developed a software system that either integrates with popular EHRs or facilitates data entry into EHRs by providing a data file that is uploading into an EHRs on a daily basis. The Canid system keeps track of a practice's vaccine inventory, replenishes supplies when appropriate, and most importantly monitors patient appointments so that a child receives all necessary vaccines. They do this by distributing barcode scanners (see above) that integrates with their proprietary software platform. When vaccines are ordered and taken out of a refrigerator or freezer, they are scanned, and fields are populated into a practices EHR (assuming the EHR supports Canid integration). Little or no manual entry is needed.

We discuss quite a bit in the video, and the conversation is quite enlightening. At the moment, Canid is assisting healthcare professionals in NYC make appointments for administration of Covid vaccines