

Pharmaceutical Sales Representative 2.0:

A computer-mediated communication project

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Executive Summary

While communication is essential in building demand for various pharmaceuticals brought the relationships of a prescriber and a physician, the current pandemic has made it extremely hard for those relationships to interact. According to Forbes, the "cost of bringing a medicine from invention to pharmacy shelves is \$2.7 billion" (Herper, 2021). Pharmaceutical companies rely on Pharmaceutical Sales representatives to detail high prescribers to the benefits of pharmaceutical drugs. Due to limited access, the commitment of shareholders to deliver impactful messages has been diminished. Now more than ever, a platform of virtual Pharmaceutical Sales Representatives (PSR) is vital to the market.

When it comes to sales rep communication, it means that approaching a physician directly is no longer the preferred option. Pharmaceutical companies must reimagine this interaction by having a virtual platform for a PSR to discuss and persuade physicians to prescribe medications is the most effective way of adapting to the new normal. This project aims to build from the ground up the first-in-class virtual Pharmaceutical Sales Representative while in a pandemic. Through this website, I hope to connect the prescriber with the drug's information, increase sales and drive prescribing habits.

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Introduction

The role of the pharmaceutical sales representative is about the safety and efficacy of medical products while promoting provider use. With vital information and insight, they influence providers to prescribe medications to patients who would benefit. The essential job description of a pharmaceutical sales representative is to contact existing customers to discuss needs, emphasize the features of products to highlight how they solve customers' problems, answer questions about the products, and maintain a list to follow up with customers to continue relationships ("Sales Representative Job Description Examples," 2021).

While a physicians' role is to prescribe the appropriate patient on that medication, most of the time spent by the professional sales representative (PSR) is on the road visiting physicians in their offices. A balanced detail refers to a pharmaceutical representative highlighting the background information such as patient profile, safety, efficacy, access to the medication they are trying to promote. The interaction of a physician and a pharmaceutical representative has evoked many debates. According to Mole (2021), "health care companies spend \$30B on medical marketing each year. Sixty-eight percent of this money goes to persuading doctors and other medical professionals, not consumers, of prescription drugs' benefits. Whether or not pharmaceuticals representatives' interactions can influence physicians have been at the forefront of controversies for decades because physicians may not understand the difference between promotional and scientific evidence.

The interpersonal relationship refers to the entire process and practice of exchanging ideas, information, and even emotional experiences that can be shared between people. This communication between a pharmaceutical drug rep and a physician is like no other. Sales

Representatives have to be very friendly but trained to assess physician's personalities, styles, and how they would like information projected to them. Pharmaceutical Sales Representative (PSR) is trained on how to detail and make sure information is sent forth in a fair and balanced way, all in a friendly and informative manner. While a PSR's role is to present a balanced detail with safety, efficacy, and access top of mind, the pharmaceutical company's role is to place a return on that detail, a sort of return on investment. As stated, Health Leaders Media, "spending on healthcare and pharmaceuticals by 2023 is estimated \$420 billion" (Pharmaceutical Spending to Top \$370B in 2019, 2021). Trainees are exposed to pharmaceutical industry marketing and promotional techniques from the initial years of their medical education, impacting their prescribing behavior in the future (Fickweiler, Fickweiler & Urbach, 2021).

Supporting health care physicians, institution, and patient needs in new ways, safeguarding employees; and enabling employees to operate in a new environment (COVID-19 and commercial pharma: Navigating an uneven recovery, 2021). In some ways, this pandemic has been a wake-up call to pharmaceutical companies to think of new and innovative ways to connect with the physicians, whether it is live or virtual. After the emergence of COVID-19 ~~times~~, the interaction will look different on the number of interactions, spacing, and physicians feeling the need if a PSR needs to come in or remain virtual.

Since the communication model between PSR and physicians has changed and maybe forever changed, the next step is to think of digital and computer-mediated communication platforms that may take the place of face-to-face interaction. The gap between these two industries must remain solid and open to innovations. In today's new normal pharmaceutical companies as communication in front of a physician has been altered. The pharmaceuticals companies are scrambling to find the latest and the most significant way of keeping that two-way

communication opens without invading physician comfort level within an office. Due to many mandates, such as social distancing, pharmaceutical representatives have been less of a priority within offices due to prioritizing first serving patients' needs with this pandemic. The push is to be creative and think of alternative ways to keep communication lines open and flexible during a pandemic.

Literature Review

In pre-pandemic, PSR always could walk into the physician's office and present a balanced detail to the physician and their staff in person. The standard requirement was to have a meaningful/insightful conversation with 8/10 physicians per day within an eight-hour workday. This open-door policy allowed for representative and physician relationships to build trust and long-lasting friendships. Physicians are susceptible to the pharmaceutical industry and PSR interactions, which influences their clinical decision-making, leading to greater prescriptions of branded drugs over low-cost generic medicines (Fickweiler, Fickweiler & Urbach, 2021). Physicians and their staff are informed of the benefits of a medication. They leave handouts, make dinners with speakers, provide office meals to have that face-to-face interaction. The doctor's access was limitless, as PSR provided resources such as clinical journals and samples of the drug they are promoting. Effective communication has always been vital in this industry.

"As COVID-19 pandemic affected world economics, including the pharmaceutical sector" (COVID-19 Pharmaceuticals Launch Disruption Worldwide until 2025 | Statista, 2021). As the economy suffers from the impact of COVID19, workers, primary pharmaceutical sales representatives are without jobs and or without contact with their prescribers. The natural flow of pharmaceuticals has been altered to a new normal and is lacking to keep up with the virtual remote details. This pandemic demands change on the pharmaceutical industry from an in-person

sales model to a remote sales model. "Big disruption affects everyday business, but they also hold opportunities to rethink the existing approach and try out new ideas (COVID-19 and pharma's in-person sales model, 2021)." Reimagining the role of medication can be promoted to physicians has to be seamless and not one that is made quick to fill a need because of the current pandemic. During the quarantine, many individuals were working from home because face-to-face interactions were not possible. As a PSR's role is now limited to in-person interaction, meeting virtually to e-detail and persuade physicians in this environment during the pandemic maybe the only interaction that will be available for many offices and staff. As office staff have become overwhelmed with COVID patients and topped off with patients with major comorbidities, finding the time where a PSR has the physician's attention has been depleted. This is not to say that digital can replace face-to-face communication, but it can allow relationship-building to continue. However, the COVID-19 crisis is creating an extraordinary strain on society, which must deal with the infection, the fear of infection, and the physical, emotional, and financial implications of physical distancing (COVID-19 and commercial pharma: Navigating an uneven recovery, 2021).

"We have less interaction overall with people outside of the people we live with, and we spend more time on Zoom, Skype, and other mediated platforms" (Taunton, 2021). The role of a pharmaceutical representative changed drastically in 2020 due to minimal interactions with critical providers. Sales reps are still valuable, but their job will have to change. It is a significant change for pharma ("Bloomberg - Are you a robot?", 2021). With so much money invested in personal interaction, the future looks very different from how to get messaging and commitment from doctors to prescribe new or existing medications launched during the pandemic. The critical role of a pharmaceutical representative is to change the attitudes and prescribing habits of a

doctor. As stated by Prescription Drug Spending in the U.S. Health Care System, "With 700,000 practicing physicians in 2004, it was estimated that "the industry spent around \$61,000 in promotion per physician (Prescription Drug Spending in the U.S. Health Care System | American Academy of Actuaries, 2021).

As the pandemic is still cause for concern for physicians, it has become a challenge to leave or hand out promotional items since limited access is allowed in practitioners offices. According to one article, "Non-personal promotion is thus a very effective method that needs to be combined with the traditional sales model to maximize pharma sales reps' efforts' (Pharma Sales Reps are Struggling - Here's Why | BlueNovius, 2021). My capstone is to fill the gap that is now set forth by this pandemic through social distancing but maintaining the key concept of relationship building of the physician and PSR. In this new platform of maintaining distance, yet still having to demonstrate the benefits of medicines to physicians, technology needs to play a major role and that a successful web design is crucial to take the place of this in-person persuasion. It will offer all necessary information at the providers' fingertips since the interaction is now minimized due to COVID regulations. This project is essential because big pharmaceutical companies spend millions to take a drug to market with the projection that the sales force will increase interactions and persuade doctors to prescribe. According to Medcepets.com "Pay per call value of a pharmaceutical fields reps ranges between \$20- \$57 (Value of Pharmaceutical Rep Per Physician Visit - MedCepts, 2021). In the current climate, pharma needs to revamp how they get these new/existing drugs into the marketplace-to have the same impact they have had in the past.

The importance of computer-mediated communication plays a vital role when it comes to reimagining pharmaceutical companies. The aspects of technology and how information and

communication technology shape our everyday lives can be positive and negative. The professional-level relationships include new software development that offers a wide range of technologies to facilitate human communication and interactive sharing of information through online networks.

Fast forward to today's encounters that are limited or obsolete. Thinking of new ways to keep interactions going, but through technology is visionary. This will help the expansion of the drug and connect virtually instead of through face-to-face encounters. However, these changes do not happen overnight. It is necessary to raise awareness and teach both the PSR and physician about the possibilities with new technologies that both sides can adopt.

Computer-Mediated Communication

A few theories came about from the concept of what is computer-mediated communication (CMC), one of which was Andrew Flanagin (2021), who suggested that CMC should not dwell on "object-centered research that overlay emphasizes new features and functions of technological tools.—Information and data can be sent-and altered by a smartphone. Our devices give us access to information anywhere, and we can connect with anyone at any time. Computer-mediated sciences were defined as having communication between two or more individual people who interact and influence each other via separate computers through the Internet or Internet connection. Would my contacts be able to have an impact on their virtual detailing as they would in person ("Computer-mediated communication - EduTech Wiki," 2021).

Since the launch of the Internet and online social networking sites, a short message service (SMS) has led the way as a mediated form of interpersonal communication. American adults spend over 11 hours a day interacting with various (computerized) media (Nielsen, 2019). As screen time continues to increase for many people working, remoting and learning remotely

have changed during the pandemic. According to United Health Care, screen time in 2020 has rocketed to 13 hours per day since COVID19 emerged ("Screen time 2020 report", 2021).

There are many advantages to having this sort of communication. It breaks down geographical barriers, which means less driving time for pharmaceutical representatives to get to an office. It still allows for communication to and from freely, allowing for greater flexibility. Physicians have complete control of their schedule when setting up a virtual interaction, providing a more robust relationship between the physician and the PSR. The disadvantages are that it is time-consuming because of the initial effort to register for any platform. Another disadvantage is the lack of actual human contact. Electronic communication tends to seem impersonal ("Computer-mediated communication - EduTech Wiki," 2021). Lastly that the interaction is based on the physician and not the pharmaceutical representative.

The literature here seems to suggest the need for two research questions. First being how will this platform allow for computer-mediated communication for the physicians and PSR to interact during a pandemic to replace face-to-face interaction? Secondly, how will this platform serve to benefit the relationship of the physician and PSR?

Methods

The method utilized to gather information from PSR on what they need on the platform was calling, texting, or emailing pharmaceutical reps around the U.S. that I have built relationships with over the last 15 years of working in the industry. The inquiries were made to my friends in the pharmaceutical business to understand how the pandemic has impacted their territories and what they see as the new norm for the pharmaceutical industry in the middle of a pandemic. They were asked the pros and cons they see in virtual detailing/ telework, whether

they feel that the new normal is virtual detailing, and how that would impact their profession. Many of them agreed that there is no replacement for face-to-face because of body language, eye contact, and understanding of the physician's office's dynamics. On the other hand, they did see the benefits of no travel time, which can be up to hours to get to one office, and the meetings to be set up per physician's time, not on the PSR agenda. All my contacts did agree they would probably get more screen time with the physician since he/she may not be preoccupied with patients and or staff and can focus on the message at hand.

The project started with a need to fill a gap between how communication can remain strong, informative, and instant in a pandemic to help increase or maintain relationships and productivity within the focus of rapidly changing technology. I realized that the industry must move very fast to date with virtual interactions and face-to-face. As I began this project, I reached out to a web designer to help me undertake this task, as there were some advanced featured, I wanted that I did not know how to implement fully. Sankunka is a full-time web designer that I have used in the past to help with other sites that I currently published. Sankunka and I discussed in detail the vision of what the ultimate goal of this site would achieve. We have had numerous hours of calls, Zoom time, and texts to input my functions and content until I got stuck at a function.

The first step for this platform was to find a domain name, Interactmeds.com. The domain and hosting were purchased via the Namecheap.com website. The name for this current platform was chosen after various names were already taken on the domain search.

Interactmeds.com is precisely what the platform is designed to do—help physicians and representatives to have two-way dialogue via computer-mediated communication. The word “interaction” is defined as reciprocal action, effect, or influence (Definition of interaction |

Dictionary.com, 2021). It seems appropriate to use that for this platform's function to have two-way dialogue and influence prescriber. This telework platform will bridge a gap of being socially distant while still having that connection.

After the domain was purchased, I created the site via HTML/CSS as framework Bootstrap, JQuery. This is a template-based website that allows us to cut and paste functions of the site and develop what I needed to make the site useable for your audience. These four main pages cover About Us, Our Key Features, Look Up, Sign In. The About Us page simply describes who we are also how a well-trained representative will effectively answer questions on camera. The Key Feature is that it is easy to use, safe, and has a quick connection. I did add a LookUp option if the physician does not know the sales representative's name, they can search simply by the physicians State, and Interactmeds.com will locate the PSR in that territory. The most important function is to Sign In or sign up for either new or existing physicians. Each page is a user-friendly experience while at the same time being able to keep relationships strong and monitored.

Next, after the physician has requested his or her appointment to discuss updates or receive information about a certain medications from the landing page of Interactmeds.com. The next step was to figure out how that communication /appointment request would be sent to the PSR. As the landing page to the site is more physician lead, while the confirmation after request is initiated is more PSR lead. The difference between these is that after the initial sign-up is approved, an appointment is set. It would be the responsibility of the PSR's to accept the appointment and generate an email confirmation that their virtual interaction will be set. While at the same time copied their managers this way, the communication is not being missed.

Interactmeds will seek to benefit the physician and PSR's relationship for the following reasons: 1) The PSR has always been trained to give a balanced detail and help identify undiagnosed patients. When presented in front of the camera to detail, the physician can find a patient who can benefit from that detail and medication. 2) To redesign a patient's journeys to minimize in-person interactions of the PSR and physician to achieve a diagnosis that potentially helps the patient have a quality of life. That information, when delivered correctly and effectively, will build more trust between the physician and PSR. Also, the pharmaceutical company will have to initiate workshops with virtual role-playing. This way, they can train representatives to be more effective in answering questions and making sales pitches on camera ("Bloomberg - Are you a robot?", 2021) to better the experience and the trust that the physician has in the representative.

Search Strategy

As I Googled the Internet for various "like platforms," I did not come across any as of February 2021. Most of the searches were physician-to-patient platforms. The platform that has been created through Interactmeds.com is different from other platforms that currently exist because this one focuses on pharmaceutical representatives to physicians. In contrast, others on the current market are physicians to physicians or physicians to patients based. The pressure for PSR to deliver messaging, whether live or e-detailing, has grown to new levels. It is more important now to have multiple options as the increase in telework. However, when it comes to an actual physician to PSR, it is first of its kind. The Google word search that I researched were as follows pharma rep and doctors interaction virtual, pharma platform technology, application for physician and pharma platform, engagement of pharmaceutical rep and a physician and consistently the sources were physicians to patient lead.

Data Strategy

The overall theme will be what key factors will make it easy for them to use this platform while continuing their relationships with prescribers. The same collection will need to occur from a physician's standpoint, what they deem to be valued to keep communication lines open. I called, texted, or emailed twenty primary care/Pulmonologist doctors to ask them what they want to see in such a platform. I solicited a convenience sample from the preliminary stages of building the website what was deemed important to the physician's user's side and the representatives. Since I am already in that industry, it was easy for me to reach out via phone call and discuss the project at hand.

After the information was collected for "must-have items/suggestions" from the PSR and physician, I then moved to the website's design, and added minimal logo. Then I moved on to crucial message/content that will be beneficial to both parties through word of mouth and digital online advertizing through site like WebMD and medical journals like, New England Journal of Medicine that are released through the American Journal of Medicine and various like publications.

Analysis

This website was created to provide information for a virtual engagement via computer-mediated communication and form a new normal instead of the pre-pandemic duties of driving around town to be in face-to-face with a physician. By having the PSR and the physician's capability to virtually interact and exchange drug safety information, efficacy, and accessibility, this it will be able to align with pharmaceutical shareholders. The PSR will be able to deliver messaging and move the sales continuum to prescribe the medication discussed via this website. The website is accessible on both android and iPhone. "If you want to know how to work with a

virtual workforce, making sure everyone has access to the tools and resources they need is paramount" ("Pharma Sales Reps are Struggling - Here's Why | BlueNovius," 2021).

This website's success is how it is promoted via PSR and pharmaceutical companies because the faster doctors sign up for the site, the faster the connection can begin or mature to persuade the benefits of pharmaceuticals drugs. A Google analysis was used to gauge the effectiveness of this new platform. While at the same time, I will connect with the original PSR and physicians who were first asked brief questions on what was essential in starting this website. I will go back to them and see where I can adjust, modify or explain better to get positive results to Interactmeds.com. What changes can be made better? How does the PSR feel that will enhance their experience of the selling continuum? How will the doctor interact with this platform between seeing patients and how demanding this platform will feel to an overwhelmed medical office. Will; this interaction be enough to increase sales while promoting the apart but together initiative through the mandates of the pandemic for hold such as social distancing and office capacity limits. Physicians need to connect with their pharmaceutical representatives locally and nationally to be detailed on the importance of the new medication to market virtually instead of in person.

Some add-ons that may be beneficial in this site's future to add a Featured Representative option and testimonials from physicians.

Pharmaceuticals Sales 2.0

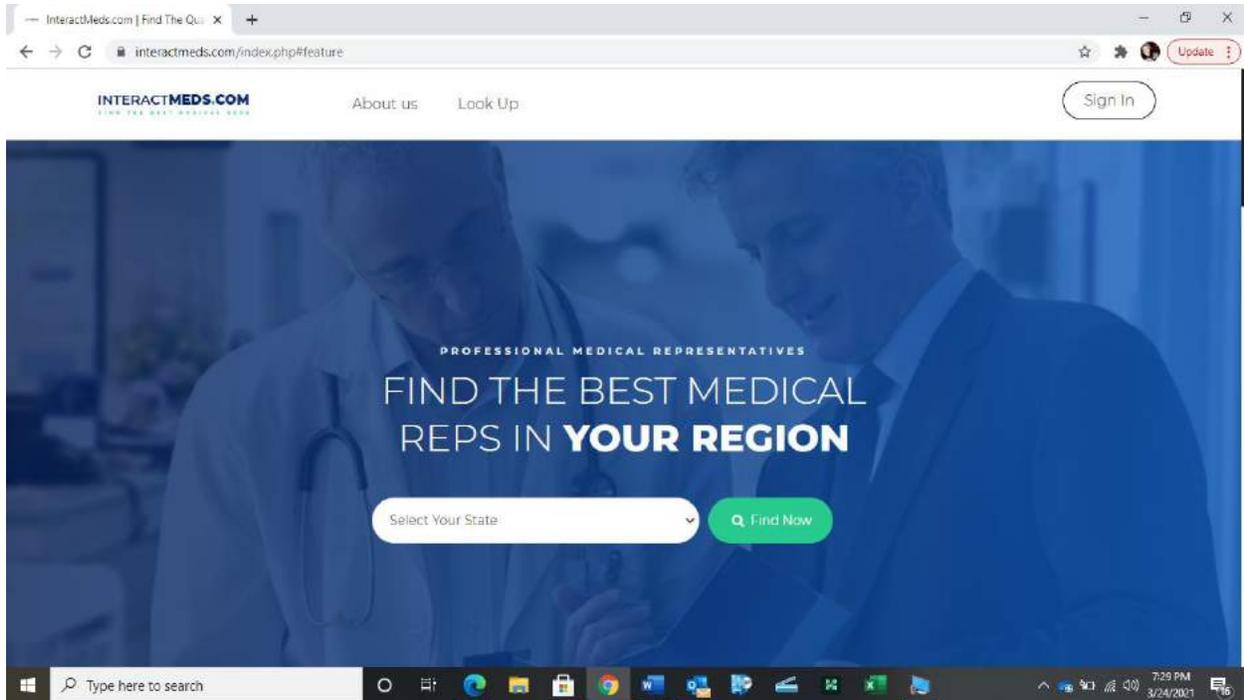


Figure 1 – Screenshot Find the Best Medical Reps in your region

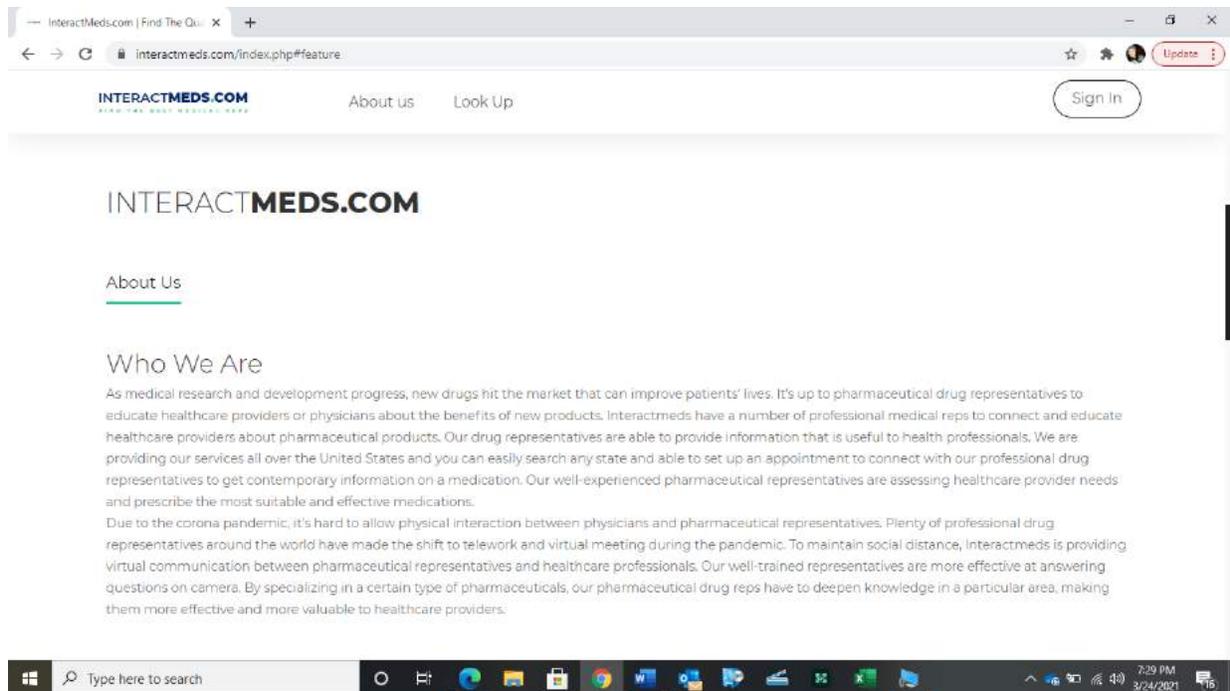


Figure 2- Screenshot About Us Interactmeds.com

Pharmaceutical Sales 2.0

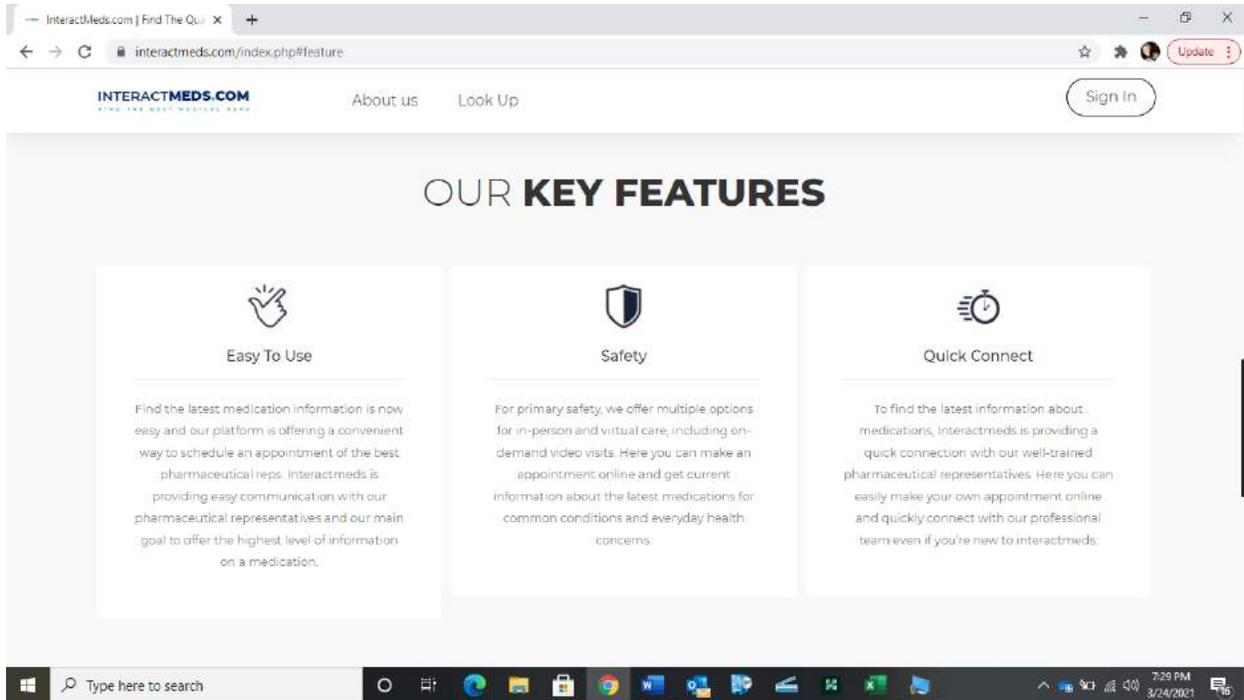


Figure 3- Screenshot Our Key Features Interactmeds.com

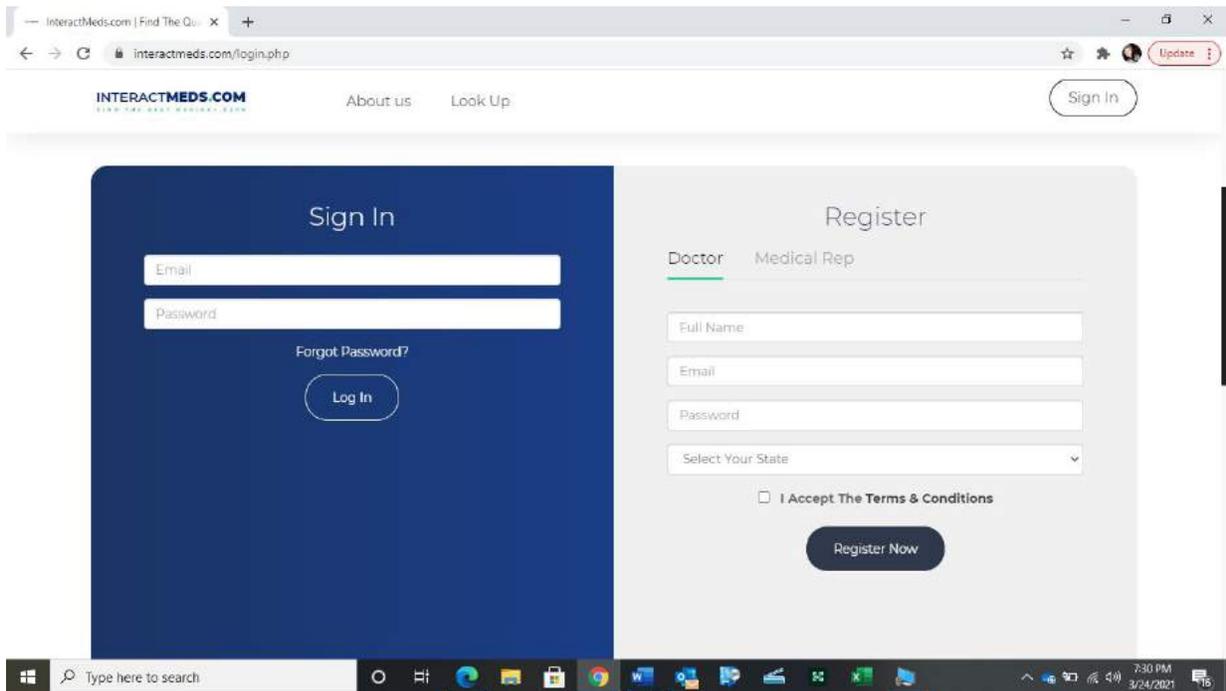


Figure 4- Screenshot Sign-in Interactmeds.com

Conclusion

After numerous updates on our end, the decision was made to have Interactmeds.com be evaluated by Hammed Kohistani, who currently runs the internet division at Bleacherreport.com. Hammed was emailed the link to Intreactmeds.com to sign up and bring back feedback on what is positive and what needs adjusting as this website flourishes. After the link was sent to Hammed, he was given 72 hours to use the website and evaluate.

This is his user experience with Interactmeds.com. Hammed thought that the platform had an easy flow, that it was kept simple at launch, but more needed to be added as time moves forward. For example, his suggestion was to feature more of the benefits of choosing us, use us, and continue to have that communication open. He also wanted to know whom this platform would serve differently than a Zoom call. My response to that is since it is the physician lead, it is easier for the provider to coordinate at his time at the same time, many providers do not know their representative's connect information, so this platform allows for no personal information to be shared, such as cell number. It is done via the platform with just a login. Hammed also inquired who would lead in getting this platform traction? I responded that it would be based on email blitzing, advertising within offices, pharmaceutical representatives dropping off information to the office as they do with updates, and notifying staff that they have this new option.

My findings suggest that Interactmeds.com is user-friendly. While at the same time provides a safe space, and travel time for representatives can be reduced or eliminated depending on the uptake of it. The cons there needs to safe space guard rail set for the pharmaceutical rep and the physicians' liability. The back of the house needs to develop a notification request pending from a physician. Since the approval of accepting the booking needs to be on

pharmaceutical representatives, they have to make sure that they are checking those emails to connect. There needs to be a carbon copy system in place so others are copied when a request comes. The PSR will need to undergo training on how interactions are to be conducted per pharmaceutical company. For safety, there needs to be a record option so that interaction can be recorded. Lastly, the Do's and Do Not's of this industry are constantly changing, and the website needs to stay current on existing representatives' present positions.

Lastly, the discovery, search, analysis, and conclusion of this capstone demonstrate where the industry is headed because of the strict limitations of social distancing, time traveling to offices, HIPAA regulations of patient confidentiality. This platform's ease should lead to successful usage for a new generation of selling in the pharmaceutical sales world. Having the option to have face-to-face encounters or virtual/telework gives more accessibility in these uncertain times as many traditional jobs have to find now a new form of communication with their client base. One message must be clear: to come out of the crisis stronger. The future must look different than the past (COVID-19 and commercial pharma: Navigating an uneven recovery, 2021).

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