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The Quarterly

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*"HD**medical**'s innovative research and the strong ethical bases it was founded on attracted me to the company."*

- Agatha

Employee Spotlight

Meet Agatha Hopkins

This June, Agatha joined HD***medical*** as a design and development intern. Agatha is part of an advanced learning engineering program at the Stafford Technical Center (STC), here in Rutland, Vermont. The program is designed for students who are interested in engineering from an early age and provides students the knowledge and resources to learn and grow in the field. Students have the chance to intern during the summer in this program and Agatha was eager to join a company on the forefront of innovative engineering technology with practical applications.

"HD***medical***'s innovative research and the strong ethical bases it was founded on attracted me to the company," said Agatha. During her internship, she had the chance to work on the design and development of manufacturing and testing jigs for HD***medical***'s flagship product - the Exersides® Refraint® "I definitely developed my skill with SolidWorks and technical drawing; both were valuable takeaways for me." Agatha had won RIT's Computing Award Scholarship, had received a National Rural and Small-Town Recognition Award, and has also been given STC Engineering's Student of the Marking Period last year. Her STEM background including a focus in astrophysics was impressive to say the least and shone through during her time at HD***medical***.

Outside of school and work, Agatha enjoys playing the violin, hiking, participating in her community robotics club, and learning languages. We were fortunate to have had such a young, talented, and well-rounded individual working with us. Alas, the summer ended, and now Agatha is back to her final year of high school. Her contributions will not be forgotten, and we are appreciative of all the time and effort she spent here. We wish her a very bright future and hope to see her again.

Did You Know?

Restraint and Sedation: Awareness is Growing! Is Yours?

The recent investigative report by **USA Today Network** on the use and abuse of restraints during the pandemic begins with the question *"Why did 14.3k people in the US die with ties to hospital restraints?"* It goes on to say, *"the number of deaths and length of time patients spent in restraints raise myriad questions about COVID-19 pandemic-era care."* Based on these citations alone, one might ask: *"Why did we start restraining and sedating patients during COVID?"* We could, as the article goes on to detail, point to how the Healthcare system was stressed to its limits and hospitals had no choice but to adopt this practice, and this is indeed true in many cases.

However, the reality is that hospitals didn't start restraining and sedating patients during COVID. For the majority of hospitals, the use of physical and chemical restraints on patients as a safety/risk management measure has been common practice for decades. In many hospitals, if you are intubated, you are restrained, either with physical restraints, sedation, or more likely, both. It is done to prevent the patient from pulling out lifesaving lines and tubes when they are left unattended. For years, caregivers believed that this practice allowed patients to rest and heal because visually the patient appears to be asleep. But also, for years, we have known that this is not the case. The patient is much more likely to be experiencing delirium, a form of brain failure that can cause long term mental health issues, numerous complications, PTSD, and even death. 80% of all patients admitted to the ICU will experience delirium. This didn't start with COVID, and we certainly knew that Restraint and Sedation is bad for patients long before COVID.

"…hospitals didn't start restraining and sedating patients during COVID. For the majority of hospitals, the use of physical and chemical restraints on patients…has been common practice for decades."

Over ten years ago, in 2013, the Society for Critical Care Medicine created the ICU-Liberation Bundle to give hospitals tools to combat delirium and the effects of immobility long before the pandemic and were beginning to gain momentum until the strain of the lock down caused the standard of care in this area to take a serious step backward. Make no mistake: restraint and sedation has contributed to the deaths of a lot more than 14.3 thousand patients.

Many studies have been carried out during the pandemic which are beginning to appear in journals, and this body of evidence will grow rapidly in the coming years. As of now, the manufacturers of ventilators (breathing machines) and other lifesaving equipment do not account in their designs for the risks of unplanned dislodgement or extubation, leaving it to hospitals and nurses to deal with the unintended risks associated with these technologies. The practices relied upon amount to a "dog's breakfast" of measures using existing items found around the unit. Until recently, there have been no products or devices available that are specifically designed to deal with this global public health issue. The Exersides® Refraint® is the first medical device designed by ICU staff specifically to address the contributing circumstances that result in restraint, sedation, and isolation—the three primary contributors to delirium and Post-Intensive Care Syndrome (PICS). An alternative is available, is easy to use, and is clinically proven safe and effective in preventing entanglement and dislodgement of tubes and lines without requiring immobilizing restraint and sedation. So, what are we waiting for?

Learn more at hdmedical.org

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A Message from C4 (Chief Culture Change Catalyst)

Hi Folks,

This is a long one but that's because it is important to report thoroughly. Please read it all.

We at HD***medical*** read with enthusiasm the article, "*Death by restraint? Physical, chemical methods employed during pandemic*" put out in mid-August by USA Today Network reporter David Robinson. The piece was founded upon documents received via the Freedom of Information Act for New York-filed forms on restraint statistics including deaths during the COVID pandemic years. Investigators are now pursuing retrieval of restraint related deaths from pre-Covid years as federal officials declined to release these statistics.

The article mentions handcuffs, pepper spray and people being beaten with batons, so we know that some of these statistics are not relevant to our patient population but the mention of pain meds, anti-psychotics, and other 'chemical restraints' tells me that some of the statistics are indeed relevant to us. Interestingly, race and ethnicity are not tracked in these statistics. Also of note is that there is no independent review of these statistics in non-psychiatric hospitals.

Some interesting quotes within the article include: "…restraint may become an extra pair of hands…" and "…chemical restraints, like sedatives, can keep patients immobile." I hope these statements hit home for us - we know the morbidity and mortality associated with physical and chemical restraint. The article also details a mother's story of how she lost her son who had been immobilized with restraints in a psychiatric ward for 10 days from a DVT, a known complication of immobility.

Did you realize that it's not the nurses who are on the hook for restraint use but the doctors? It is physician and licensed independent provider (LIP) notes that are cited when searching for causality and lack of proper restraint use. Federal regulators stated that of the small percentage of cases reviewed, 'few cases conclude restraints directly contributed to (the) fatality', but don't for a minute believe that it is ending there.

Once the pre-COVID restraint complication files are accessed, restraint documentation will be scrutinized, and physician involvement in the decisions to use restraints, both physical and chemical, and the implementation and scoring for restraint use algorithms will be traced back to the ordering provider for responsibility and accountability.

And the statement by federal officials only cited deaths *directly* caused by restraints, but what about *indirectly*? What's going to happen when that can of worms is opened? Are we ready for that? It seems as though the veil that medical centers and LTACHs have been sheltered by is being lifted.

My advice is to make sure you have good training for PHYSICIANS and COMMITTEES as well as nurses, on restraint devices and proper use based not only on hospital policies but on standard of care and available options; review hospital restraint policies not only for safety and risk profiles but also for common sense since some policies can increase risk as they endeavor to decrease it, and that makes for great news copy.

I know this is a bit 'salesy', but you may want to look into our consultancy service and A+O x 3™ education course which includes the DelTrain™ VR module and free Refraints® and consider them for your committees and physicians, as well as for nurses and bedside staff. It is our collective responsibility to be proactive in correcting any missteps made during COVID and pre-COVID.

Yours truly,

Marie Pavini, MD, FCCM, FCCP

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A Few Good Mentions

Upcoming Conferences Fall 2024

10/6–10/9 **CHEST ACCP** (American College of Chest Physicians**)** Boston, MA – ***HDmedical Booth #1179***

10/14–10/15 **ANLC** (Academic Nursing Leadership Conference**)** Washington D.C. **–** ***HDmedical Booth #36***

10/14–10/17 **NCS** (Neuro-Critical Care Society**)**, San Diego, CA

10/24–10/25 **Nursing Leadership Summit** Las Vegas, NV

10/30–11/1 **AACN Magnet** (American Nurses Credentialing Center) New Orleans, LA – ***HDmedical Booth #670***

11/7–11/8 **Johns Hopkins ICU Rehab Critical Care Rehabilitation Conference** (live)

11/14–11/15 **Virtual Reality and Healthcare Europe Symposium (IVRHA**) Geneva, Switzerland

More than 14,300 patient deaths in medical facilities and hospitals across the U.S. involved them being placed in restraint or seclusion, a USA TODAY Network-New York investigation found.

In the News

"Death by restraint? Physical, chemical methods employed during pandemic" by David Robinson from New York State Team USA TODAY NETWORK. *Commentary in this newsletter is based on this article, however, it cannot be reprinted here. You may read an associated article here.*

HD***medical*** is growing on social media. Follow our *Unlocking Minds* series and more.

Home In Vermont

Vermont is known for its stunning fall foliage. The state has the largest concentration of sugar maple trees in the U.S. contributing to the vast vibrant views of red and orange.

Vermont has 5 mountains over 4,000 feet. The highest peak is Mount Mansfield at 4,393 feet.

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