

SURGERY

Synopsis



CHAIR'S MESSAGE



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The Henry N. Harkins
Professor and Chair

The 2020 Spring issue of Surgery Synopsis is multi-focused. There is so much happening right now in our nation, in healthcare, and certainly within the Department of Surgery. In this issue we wanted to give you a flavor of how COVID-19 has affected our Department and our people, at the same time keeping our “regular” work moving forward while making progress on our strategic initiatives.

In recent months, COVID-19 has overshadowed nearly everything else in the Department of Surgery, in UW Medicine, and even in our daily lives. Though the times have been extraordinary and difficult, we have many reasons to feel grateful, to appreciate our community at UW, and our wider community in Seattle, for responding to crisis in responsible, intelligent, and mutually respectful ways.

Our staff have shifted to work from home, continuing to keep our department running smoothly and continuing to support our faculty and trainees and our clinical, educational, and research programs. Our residents and fellows have reorganized themselves into resilient clinical care teams that continue to support patient care while also creating separation and safety for themselves and our health care teams. Residents have volunteered to work in the ICUs and EDs and have provided an important foundation of support, enabling our health care system to meet the new clinical challenges of COVID-19 patients. Likewise our faculty have supported each other, making accommodations for colleagues at higher risk of coronavirus infection, shifting from elective to urgent care all while learning to become facile with telemedicine, and stepping up to serve in other parts of the health care system, practicing well beyond our usual comfort zone.

Currently we are working to ramp up the return to full surgery service, i.e., completing delayed urgent operations and scheduling elective surgery. Ramping up for a return to “normal” is not simply “flipping a switch,” it’s taking into account all that has changed and how we move forward with a new normal, a normal that will have some lasting changes from the pandemic, and hopefully a new normal that will be better than before. UW Medicine is following the credo of “don’t let a good crisis go to waste.” We are working to tackle system changes that we believe can make the OR/surgery services run more smoothly and efficiently as we return to our elective surgery schedule. This means we are working with our anesthesia and nursing partners in the ORs to make a more efficient and smoother process for patients as well as faculty and staff. This is on-going work and I am proud to be a part of this effort.

In my mind, this Department is full of heroes, and I could not be prouder to work with our Department of Surgery team. There is nothing like a crisis to test our mettle and to allow individuals to show their strength, compassion, ingenuity and resilience.

In this edition of Surgery Synopsis, we will tell in more detail, important changes, accommodations, and creative problem solving we’ve done to meet this crisis head on, including the enormous expansion of telehealth, which has proved critical to caring

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for our patients. We'll take a closer look at how residents have banded together and responded to the crisis, and how Extracorporeal Membrane Oxygenation (ECMO) plays an increasing role in patients with critical respiratory failure. We have learned how to adapt solid-organ transplantation to new circumstances and how to deliver on-going cardiac services during the COVID-19 crisis.

Meanwhile, the Department continues to do work that keeps us at the forefront of clinical care, surgical education, and research. One example is simulation science. Healthcare simulation activities were started in the Department of Surgery in 2005. Dr. **Carlos Pellegrini** (Department of Surgery Chair 1993-2015) had the vision for a simulation center at UW Medicine, correctly perceiving this would be an important training tool and a rich source of research. From those early beginnings, we have now evolved to the **WWAMI Institute of Simulation in Healthcare (WISH)**.

WISH is now led by Professor **Robert Sweet**, a Urologist with a joint appointment in the Department of Surgery. Since joining faculty in 2016, his leadership of WISH has resulted in extraordinary growth and expansion of simulation science at UW, both for education and for important research advances in healthcare.

WISH's mission is to improve the quality of healthcare education through technology by providing learners with a safe training environment where they can learn and practice their skills before ever using them on a patient.

A separate research arm, the **Center for Research in Education and Simulation Technologies (CREST)**, is devoted to advancing the current state of medical training and patient education. CREST consists of a talented team versed in Simulator Development, Material Science, Digital Animation, Mechanical Engineering, Traditional Art, and Medical Training, all working alongside industry partners and hospital staff of all levels.

The team has created virtual reality surgical trainers, educational software, clinical apps, part-task trainers, simple tissue analogs and helps to conduct validation studies. CREST also works to develop these by acquiring tissue property data for our Human Tissue Property Database. CREST is doing such valuable work, and during COVID, they were able to pivot and make face shields, using their considerable engineering skills and 3-D printing expertise.

Over the past four years, WISH and CREST have grown and expanded their reach. The logical next step in the evolution of simulation was to create degree-granting programs and hire faculty in this innovative field. Dr. Sweet and the Department approached the Dean of the School of Medicine and received approval to create a new division within the Department of Surgery, the **Division of Healthcare Simulation Science (HSS)** as of January 2020. HSS is the ninth division in the Department with Dr. Sweet named as its inaugural Division Chief, with WISH and CREST included in the Division structure. WISH will continue to remain a UW Medicine priority and is a resource to all Departments in the School of Medicine and UW Medicine hospitals. We are pleased to include them formally into the Department and fully support their mission.

Despite the many challenges presented by COVID-19, we continue to attend to the important daily business of our department through the dauntless efforts of our faculty, residents and staff. We have several new faculty who have joined the Department since the last issue. These faculty continue to ensure we are able to provide the best care for patients, training for our residents and fellows and bring new avenues of research into the Department. Please find their bios on [page 14](#).

Our faculty continue to publish important academic papers and provide information in public forums and the media. Read more about the Department's contributions on [page 26](#). And

our staff have continued to make enormous contributions, shifting from the office to work from home, yet supporting the mission of the department, and staying connected by Microsoft Teams, Zoom and email. We owe a huge debt of gratitude to our staff who are the glue that holds everything together, supporting our clinical programs, and important education mission, along with our research enterprise. Thank you for your incredible flexibility and resilience throughout the changes forced on all of us by the pandemic.

Finally, I recently invited members of the Department (faculty, staff and trainees) to send pictures of them and their families doing the things that are important to them to present at my **May Grand Rounds**. We had a great number of our department members send in photographs and with the help of one of our WISH staff members, **Andy Naluai-Cecchini**, we have put together a slide show. Please enjoy by following this [link](#).

I hope you enjoy this issue of Surgery Synopsis.

Sincerely,

Douglas E. Wood, MD, FACS, FRCSEd
The Henry N. Harkins Professor and Chair