## DoS at the VAPSHCS

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The most significant issue observation data showed was the discrepancy in time from clinical suspicion to diagnosis of lung cancer between the two facilities. We hypothesized that much of the delay might be due to the inconsistent way in which patients navigate the process from suspicion to diagnosis. This was the basis for our specific improvement aims. The four aims below were tackled using Lean principles, Six Sigma, and systems engineering techniques to examine patient flow and processes of care. The Plan, Do, Study, Act (PDSA) model was adopted for testing ideas for change in rapid cycles.

- AIM 1: Decrease time from clinical suspicion to diagnosis from 77 days to 35 days;
- AIM 2: Reduce time for the Thoracic Surgery Inter-facility consult process from 21 days to 14 days;
- AIM 3: Implement hand-off/treatment summary notes for patients returning to Spokane;
- AIM 4: Improve quality of care/patient satisfaction for lung cancer patients referred from Spokane to Seattle

We were aided in our work by System Redesign and Industrial Engineering coaches provided by the VA Office of Systems Redesign and the Veterans Engineering Resource Center (VERC). Training was provided at three national face-to-face learning sessions introducing the core techniques of VA process improvement.

Team goals were met; however, the more compelling impact was that we established a working collaborative between Seattle and Spokane. This collaborative was able to hardwire processes that continue to result in improved efficiency and patient satisfaction.

## Telehealth and the VA: Surgery's Role in this Emerging Modality

The VA health care system has prioritized the incorporation of telehealth services for patient care. The Surgery Service Line has taken a lead role in promoting this national initiative for clinical care, research and education.

Optimal management of cancer patients requires an efficient and coordinated effort between referring physicians, surgeons, medical and radiation oncologists, and staff of specialized health care professionals. One of the main challenges for delivering cancer care in the VA is providing comprehensive multidisciplinary evaluation, treatment,



Peter Wu, MD

and follow-up to veterans distributed over a wide network of regional VA facilities covering a fifth of the U.S. land mass (VISN 20 Region).

The VAPSHCS serves as a regional cancer center and tertiary referral center for veterans and has received national recognition for creating the first cancer telemedicine program between regional affiliates in the Pacific Northwest. For the past 10 years, the program has been led by the Director, Peter C. Wu, MD, a dual fellowship-trained surgical oncologist with major clinical and research interests in the multimodality treatment of advanced malignancies. He currently serves as the chairperson of the VAPSHCS Cancer Committee and is the clinical chair of the VA Telehealth Committee.

The cancer telemedicine outreach program is used for over 100 patients each year and is designed to provide regional caretakers an opportunity to present cancer patients to a multidisciplinary tumor board staffed by a dedicated team of cancer specialists. The ability to incorporate real-time audio and video exchange between caretakers at distant facilities preserves the personal

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## Patient-Centered Outcomes Research Institute (PCORI) Grant



Erik Van Eaton, MD

A multi-disciplinary team of UW researchers, headed by Douglas Zatzik, MD, Professor Associate Vice Chair for Health Services Research in the Department of Psychiatry and Behavioral Sciences, and including Department of Surgery Assistant Professor, Erik Van Eaton, MD, was recently awarded a major PCORI grant. Dr. Van Eaton is the informatics core lead on this study.

PCORI is authorized by Congress to conduct research to provide information about the best available evidence to help patients and their health care providers make more informed

decisions. PCORI's research is intended to give patients a better understanding of the prevention, treatment and care options available and the science that supports those options.

The particular research focus for the UW grant began as a group of front-line trauma center providers, patients, researchers and policy makers who worked together for over a decade to integrate patient-centered care into US trauma care systems. They began by asking large groups of injured patients the key patient-centered question "Of everything that has happened to you since your injury, what concerns you the most?" From that, the group developed scientifically sound assessment tools that allowed them to follow patient concerns after injury hospitalization.

Currently high quality patient-centered care is not the standard of care throughout US trauma care systems. Injured trauma survivors treated in trauma care systems frequently receive fragmented care that is not coordinated across hospital, emergency department, outpatient, and community settings. Post-injury care is frequently not individualized to integrate the patient's most pressing posttraumatic concerns and preferences into medical decision making.

The team came to realize that in order to optimally integrate patient-centered care into US trauma care systems they must use the best scientific methods that capture the highest quality data. This PCORI proposal will demonstrate that post-injury care management plans integrating patient concerns and preferences can improve overall outcomes for patients, caregivers and policy makers. This project directly addresses the PCORI patient-centered research questions: "After a traumatic injury, what can I do to improve the outcomes that are most important to me? and How can front-line providers working in trauma care systems help me make the best decisions about my post-injury health and healthcare?"

Congratulations to this team for their perseverance in this project.

## Telehealth and the VA

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dimension of cancer care as well as promotes efficient patient care by minimizing patient travel, streamlining cancer staging studies, and familiarizing the cancer team members with individual patients before they arrive. Patients and their families are also able to have personal "face2face" video conferences with our cancer providers in lieu of traditional clinic visits. We also successfully use telehealth to summarize treatment results and provide follow-up recommendations to patients' primary providers facilitating successful transfer of care. As an example, the General Surgery section has created a Tele-Post-op Clinic for patients undergoing elective outpatient surgery using these tools. Patients are given the choice to schedule post-operative visits at their local clinics where digital images of their wounds are uploaded into the electronic medical record and they can have a personal video conference with their surgeon eliminating the need to travel back to the Seattle location. This has resulted in high patient satisfaction reports as well as providing surgery trainees a new experience for outpatient clinic.

More recently, the telehealth program has received clinical research funding to incorporate advanced technology such as real-time HD digital imaging, pathology slide scanners, and tools for head and neck and cardiopulmonary exams. This has amazingly expanded the scope of telehealth practice.

Our experiences combined with other VA telehealth programs including Tele-Mental Health, Tele-Dermatology, Tele-Cardiology, Tele-Spinal Cord Injury and Tele-Retinal clinics consistently demonstrate that this emerging health care modality is cost-effective, improves the quality of patient care and provides high levels of satisfaction among health care providers and patients.