ADVANCING CRITICAL CARE THROUGH CLINICAL RESEARCH

2013 ANNUAL REPORT
CONTINUING TO ADVANCE CRITICAL CARE THROUGH CLINICAL RESEARCH

The Critical Care Research Center (CCRC) at Regions Hospital is a physician-led research unit located in St. Paul, MN. The CCRC conducts integrated clinical research spanning the entire continuum of patient care, from the time an ambulance arrives at the patient’s side until discharge from the hospital and beyond.

Our clinical research expertise currently encompasses eight key specialty areas:

Our clinical research activities are aligned with Regions Hospital’s mission to improve health and well-being in partnership with our members, patients and community. As you will see throughout this report, our patients are active participants in discovering new treatments for a variety of conditions, including stroke, traumatic brain injury, and cardiac arrest.
2013 HIGHLIGHTS BY DIMENSION

People

Increased Staff to Support Projects

The addition of two research coordinators to our staff in 2013 is a reflection of the continued growth of projects supported by the CCRC. We continue to maintain an integrated group of on-call research enrollment specialists that provide 24/7 patient screening and enrollment capabilities. Our ability to provide this level of patient screening is an invaluable resource that sets our clinical research group apart from others locally and nationally.

We also welcomed our second class of Emergency Department research interns in June. This highly motivated group of individuals committed to working with the CCRC for a full year, learning the process of conducting clinical research from idea generation through manuscript publication.

Four of the six Emergency Department research interns from the 2012 inaugural class were accepted into medical school.
Health

A Top Performer in Clinical Trials

Regions Hospital continues to be a top performer in several clinical trials funded by the National Institutes of Health:

- At the conclusion of the ProTECT Trial, a study examining the effect of progesterone on neurologic function for patients sustaining a traumatic brain injury, Regions Hospital was the fifth highest enrolling institution out of 38 hospitals nationwide.

- Similarly, we continue to be one of the top ten highest enrollers for the POINT Trial, a nationwide study of the use of aspirin and clopidogrel to reduce the risk of subsequent cardiovascular events in TIA and minor ischemic stroke patients.

- In November, our staff began enrolling patients into a new study examining the use of a non-invasive sensor to evaluate swallowing function. We quickly became the top enroller among three study sites across the country.

Continued Growth in Awarded Projects

In 2013, 33 new project proposals were submitted for review, a threefold increase over 2012. Additionally, two emergency department physicians were awarded funding by the HealthPartners Institute for Education and Research’s internal grant program. These are just two of the 53 active research projects facilitated by the CCRC staff and physician investigators:

- Brad Gordon, MD, is studying how emergency department providers use a health information exchange to obtain additional health care information from outside institutions.

- Bjorn Westgard, MD, was awarded an internal grant to examine the geographic connection between areas within St. Paul with limited healthy food availability and emergency department visits for diet-related illnesses.
New Studies for Spinal Cord Injuries and Stroke
The CCRC has also launched three new neurologically focused studies for patients who have experienced a spinal cord injury or stroke. Matthew Kang, MD, a neurosurgeon at Regions Hospital, is the principal investigator on a trial examining the effect of magnesium on improving motor and sensory outcomes for patients with spinal cord injuries. In early 2014, we anticipate the start of a study looking at the impact of early intense blood pressure control for patients with intracranial hemorrhage, and another stroke study examining the use of ticagrelor for minor stroke patients.

More Specialty Areas Added to CCRC
In the second half of 2013, we also welcomed the hospital medicine and medical intensive care unit specialty areas to the CCRC. These additions have increased the number of specialty areas supported by the CCRC from six to eight. This was the result of an initiative to identify areas of clinical research interest and expertise within Regions Hospital. Both research programs will be launched in 2014.

Numerous Projects Successfully Completed
While a record number of research projects were added to the CCRC in 2013, others were successfully completed:

• 26 research abstracts were presented regionally and nationally
• 11 manuscripts were published in 2013, including our work to:
  o Compare two different video devices used for airway management by EMS providers
  o Utilize a supraglottic airway in rapid sequence intubation for helicopter EMS
  o Inform emergency department patients of the risks and benefits of CT use
  o Implement of a massive transfusion policy for non-trauma patients

After implementation of a hospital care plan, patients were able to decrease their use of the Regions Hospital emergency department by 46%.
Experience

Patient-focused, Hassle-free Care

The CCRC staff becomes part of the care team of the patients who participate in our clinical research studies. As a result, we have become a valuable resource for those patients in navigating care and are often the first call they make for questions. Patients are the center of our work, and we continue to show our appreciation and ask for feedback on their experience as a research participant at our Participant Recognition events. In 2013, we brought patients and their families, EMS providers, and research staff from Regions Hospital and the HealthPartners Institute for Education and Research together at the Science Museum of Minnesota to hear the results of the IMMEDIATE Trial. This study compared the amount of heart damage people with heart attacks had after receiving either a solution of glucose, insulin, and potassium or a placebo. The evening was an amazing opportunity to see how each patient was impacted by their participation in this study.

We are committed to providing hassle-free access to the services we provide. Our annual investigator survey from 2013 reflected that commitment. Each year, we survey approximately 20 physicians who use our research infrastructure. The overall satisfaction score was 4.8 out of a possible 5. We will continue to focus on providing outstanding service and assess our performance again in 2014.

Stewardship

Strongly Supported by Funders

We have strong continued support for our work from external funders, which positioned the CCRC for a strong financial finish in 2013. Of our revenue in 2013, 19% was secured through HealthPartners grant programs, 40% was obtained from a mix of external foundations, industry, and the federal government, and the remaining portion was provided by Regions Hospital Foundation. In 2014, our stewardship focus is on securing additional external funding through outreach to local clinical research organizations, federal research grant funding for investigator-initiated studies, and philanthropic giving.
Bennett B, Morgan RA, Gonzaga TA. Incidence of extremity external fixator complications in patients undergoing magnetic resonance imaging. Poster presented at the Society of Federal Health Professionals (AMSUS) Annual Continuing Education Meeting, November 2013, Seattle, WA.


Zwank MD, Bourdon RM, Adibhatla R. Increased body mass index among women correlates with increased rates of urine sample contamination. Poster presented at the Society for Academic Emergency Medicine Great Plains Regional Conference, September 2013, Springfield, IL.


2013 MANUSCRIPTS


Love JN; Delorio NM; Ronan-Benrle S; Howell JM; Doty CI; Lane DR; Hegarty C. Characterization of the council of emergency medicine residency directors’ standardized letter of recommendation in 2011–2012. *Acad Emerg Med.* 2013 Sep;20(9):926-932.


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