

A triumph in trauma care

Despite several advances in trauma care over the last two decades, mortality from traumatic abdominal hemorrhage resulting in hypotension is virtually unchanged, at close to 50%. But a new device could help change that: the REBOA catheter.

REBOA (resuscitative endovascular balloon occlusion of the aorta) is a specialized catheter with a balloon designed to be placed in the patient's aorta via the common femoral artery. The balloon is inflated until it occludes the aorta, stopping hemorrhage in the abdominal and pelvic regions until the patient can undergo definitive care.

OhioHealth Grant Medical Center recently was named a national Center of Excellence for partial REBOA, and in April, the hospital became the first in the world to place Prytime Medical Devices' new pREBOA-PRO catheter into a patient. This achievement is the result of Grant's long history of success in trauma care, especially our Trauma team's treatment of hemorrhagic shock.

[SEE HOW REBOA WORKS](#)

IN THE FIELD

Combating increasing incidents of penetrating trauma

Over the past year, trauma centers across the nation and locally have experienced an unprecedented increase in the incidence of penetrating trauma and firearms-related injuries. OhioHealth Grant Medical Center has treated more gunshot wounds over the past 12 months than ever before in its history, and similar trends have been noted at OhioHealth Riverside Methodist Hospital and OhioHealth Mansfield Hospital.

The implications of this uptick have far-reaching ramifications. So now, more than ever, it is imperative that hospitals and EMS providers partner with the community to create a strategy to save lives. As the region's largest trauma system, OhioHealth has taken the lead in transforming lifesaving trauma care through prevention, education and innovation.

[SEE WHAT WE'RE DOING](#)

DIRECTOR'S CORNER

Ohio EMS Conference recap

Holly Herron, DNP, RN, CNP

The COVID-19 pandemic may have kept us from celebrating National EMS Week at the Greater Columbus Convention Center again this year, but our annual Ohio EMS Conference was still a virtual success. This year's conference offered expanded lecture topics, including trauma, obstetrics, pediatrics, medical emergencies, adult learner concepts and operations. Live and prerecorded WebEx broadcasts, an EMS Educator track, and simulation labs took place over five days, with lectures in the mornings, afternoons and evenings, so everyone could enjoy continuing education at their convenience.

All lectures and simulation labs were recorded, and will soon be accessible in the library at [OhioHealthEMS.com](#). The library offers more than 50 continuing education lectures, and new lectures are added regularly.

More than 500 participants participated in the event, and expressed very positive feedback. Thank you for the support! We look forward to celebrating EMS Week in person with you next year.

CASE STUDY

See how tPA administration reversed a stroke in a patient presenting to the emergency department with aphasia.

[READ MORE](#)

EDUCATION UPDATE

*Barbara Dean, BSN, RN
Paramedic
Program Manager*

COVID-19 has presented many challenges for EMS providers trying to obtain continuing education. OhioHealth is offering online education opportunities to help. Schedule training via Webex or at your location by [filling out our group education request form](#).

FAST FACTS

OhioHealth Trauma statistics

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- OhioHealth Grant Medical Center's Trauma department has seen a 31.7% increase in penetrating trauma over the past two years.
- Grant's Trauma department has seen a 53% increase in gunshot wounds in the last year, with August 2020 being the highest ever and January 2021 the second highest.
- OhioHealth's Trauma program is the busiest in the state, with more than 12,000 trauma evaluations in the last year across our three trauma centers.

SERVICE LINE FEATURE

Increasing pulmonary embolism and thrombus in the wake of COVID-19

Daniel Smith, MD

Michelle Hill, MS, RN

New research is proving a correlation between COVID-19 infections and prothrombotic states leading to vascular complications. In November 2020, the Mayo Clinic published a literature review focused on the incidence and management of thrombotic events associated with COVID-19.¹ Their findings include a higher incidence of thrombotic events for patients with severe or critical COVID-19 illness. Of the 12 studies reviewed, there was an overall rate of deep vein thrombosis (2%), pulmonary embolism (17%), stroke (2%), myocardial infarction (1%,) and disseminated intravascular coagulation (6%).¹

A more recent article published last month placed the rate of venous thromboembolic events as high as 25-30%, and acute ischemic stroke and myocardial infarction as high as 5-20%.² While stroke can affect anyone, some series have shown a slightly higher incidence than normal in younger patients without typical vascular risk factors who have large vessel occlusions.³

The mechanism behind the prothrombotic states is difficult to understand and still being researched. What we do know is COVID-19 affects the vascular system, we just aren't completely sure how. Some have proposed that this may relate to a combination of inflammatory cytokines increasing systemic hypercoagulability, and possible effect of the virus on the endothelial cells of blood vessels.^{4,5} More research is underway.

[SEE SOURCES](#)