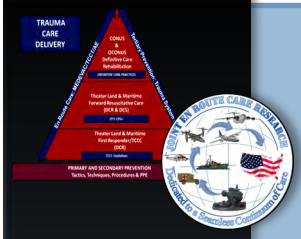
59th Medical Wing
Office of the Chief Scientist
Research Highlights

April 2016

What's new in...



En Route Care

Maj Joseph Maddry (AFMSA at 59 MDW/ST) and the En Route Care Research teams' "Combat MEDEVAC: A Comparison of Care by Provider Type for En Route Trauma Care in Theater and 30-day Patient Outcomes" manuscript, was accepted for publication in the Journal of Trauma & Acute Care Surgery. Their combined efforts evaluated the scope of MEDEVAC providers and identification of associations between provider type, procedures performed and outcomes.

Operational Medicine

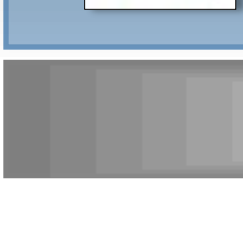
The model development abstract for "Validation of Bioabsorbable / Biointegratable NPWT (Negative Pressure Wound Therapy) Sponge in a Large Animal Model of Composite Tissue Loss" (PI: Lt Col Michael Davis, USAISR Deputy Commander (59 MDW)) was accepted for a podium presentation at the 2016 International Surgical Congress of the Association of Surgeons of Great Britain and Ireland Association / Association of Trauma and Military Surgery Conference. http://www.asgbi.org/belfast2016/scientific-programme/

Force Health Protection

The Versatile Injury Prevention and Embedded Reconditioning (VIPER) program, provided data for the brief entitled "Athletic Trainer Integration in U.S. Air Force Basic Training" (PI: Capt Bryant Webber (559 THLS/SGOZ)), presented to the 37 Training Wing Commander and the 559 Medical Group Commander. Capt Webber was able to showcase the program and discuss the efforts to improve the quality of care and return to duty status of the trainees. (http://www.airforcemedicine.af.mil/News/Article/648491/viper-clinic-program-aims-to-reduce-af-physical-training-injuries)

Expeditionary Medicine

The Trauma-Specific Vascular Injury Shunt (Inventors: Mr. JR Spencer, 59 MDW/ST; Col Todd Rasmussen, MC, USAF MEDCOM USAMRMC; and Maj Shaun M. Gifford, USAF, MEDCOM BAMC, 959 MDOS) was designed by combat surgeons and researchers to manage extremity vascular injury. Research at the 59 MDW has validated the ability of the device to ensure adaptability to patients, minimize complications and allow critical monitoring/infusion of therapeutic (therapeutic reperfusion) or contrast agents (angiography) into an injured limb. This device is in advanced development and AFMS is in negotiations for license agreement and commercialization. The 59 MDW/ST is sponsoring a 510K FDA device submission. http://techlinkcenter.org/summaries/vascular-injury-shunt



The Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA Inventors: Col Todd Rasmussen, MC, USAF MEDCOM USAMRMC and Jonathan Eliason, MD, University of Michigan) is a fluoroscopy-free thoracic aortic balloon occlusion system to control non-compressible hemorrhage and assess the effect of an occluding aorta. Research to develop the device was conducted at the 59 MDW in partnership with the University of Michigan. Application was taught as part of the training course ESTARS (Endovascular Skills for Trauma and Resuscitative Surgery) at the 59 MDW Clinical Research Division (CRD). Members of the 60 MDG (Travis AFB) attended the ESTARS course and collaborated with industry partners and the USAISR to develop a prototype and deliver an FDA Product Development Plan. The device was transitioned to the JPC6 Combat Casualty Care Research Program and development efforts were continued a 60 MDG. The REBOA device was recently used by an AF surgeon at UC Davis Medical Center to save the life of a trauma victim: http://www.airforcemedicine.af.mil/News/Article/707343/wartime-innovation-battleborn-medical-device-saves-lives-at-home

https://kx.afms.mil/kj/kx8/59MDWScienceAndTechnology/Pages/home.aspx

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