Update & Perspective from the Airborne Hazards & Burn Pits Center of Excellence (AHBPCE)

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WHERE HAVE WE BEEN?

- 2001- War Related Illness and Injury Study Centers established
- 2001- Global War on Terror begins
- 2004- NJ WRIISC establishes ‘executive evaluations’ for post-9/11 Veterans
- 2007- NJ WRIISC reports post-9/11 Veterans’ exposure concerns, including burn pit smoke & airborne hazards/Post-deployment clinics around VHA
- 2010- NJ WRIISC conducts baseline PFT’s on all post-9/11 Veterans
- 2011- NAS publishes first report on airborne hazards concerns/First DoD-VA symposium/NEJM report on constrictive bronchiolitis case series
WHERE HAVE WE BEEN?

- 2012- VA Pilot study of cardiopulmonary symptoms in Veterans funded and initiated at NJ WRIISC
- 2014- Airborne Hazards & Open Burn Pit Registry (AHOBPR) launched
- 2015- Airborne Hazards Center of Excellence (AHCE) launched at NJ WRIISC
- 2016- First NJ WRIISC AHCE case series report published/First peer-reviewed publication from AHOBPR published
- 2017- AHOBPR analysis of blast and cardiopulmonary symptoms published
- 2018- VA study of cardiopulmonary symptoms in Veterans funded & initiated at NJ WRIISC
- 2019- AHCE designated the Airborne Hazards and Burn Pits Center of Excellence (AHBPCE) at NJ WRIISC
CUMULATIVE CLINICAL EXPERIENCE AT NJ WRIISC/AHBPCE

NJ WRIISC Clinical Referrals* (n = 546)

Pre or Post-9/11 (n = 472)

Pre and Post-9/11 (n = 28)

Other Conflicts (n = 46)

ODS/S (n = 215)

OEF/OIF/OND/OIR (n = 257)

*Received partial or full cardiopulmonary evaluation (8/2011 – 8/2019)
WHERE ARE WE NOW?

• Expanding the clinical evaluation capacity
• Leveraging the AHOBPR to improve access to and quality of care
• Enhancing basic and translational (T1) research with academic partners
• Launching DoD-funded linked proposals to explore blast-related lung injury in Veterans
• Mining the AHOBPR and other existing data sources to generate and test hypotheses
• FY 19 money committed (mostly for external collaborations)
• Hiring new personnel at NJ WRIISC
• Expanding clinical, research, and education capacity
  – Partnership with VA-New Jersey HealthCare System, Post-Deployment Health Service, Office of Research & Development, Employee Education Service
• Partnering with academic affiliates
  – Rutgers University New Jersey Medical School, Robert Wood Johnson Medical School, Environmental and Occupational Health Science Institute, Ohio State University
• Building an independent identity on the WRIISC foundation
POST-DEPLOYMENT CARDIOPULMONARY EVALUATION NETWORK

- Four charter sites: Baltimore, San Francisco, Ann Arbor, Eastern Colorado
- Core clinical evaluation modeled after AHBPCE experience
- Expands clinical evaluation capacity (100/year)
- Enhances capabilities across the VHA
- Clinical evaluation will form the nidus for prospective and retrospective clinical research (e.g., investigator initiated research projects, data & biorepository)
- AHOBPR used to identify high priority target subpopulations
AHOBPR SUMMARY (AS OF 15SEPT2019)

• Participants: 184,494

• Number documented Registry Exam (AH note title)
  – 119 VA Medical Centers
  – 11,536 (8,845 participants)

• Health factors - Chief concerns [Top 5 (>50%)]
  – Shortness of breath
  – Chronic sinus infection
  – Runny nose
  – Gastrointestinal problem
  – Decreased exercise ability
• Registrant Summary Report – Monthly
• Clinical Summary Report – Monthly
• Facility Reports – Quarterly shared with VISN leads and facility environmental health clinicians and coordinators
• Detailed AHOBPR Self Assessment Questionnaire Summary - Quarterly
ONGOING RESEARCH

• Sarcoidosis
  – Multi-system disease which most commonly affects lungs
  – Case-control study
    • Case (n=454) 1 or more ICD code for sarcoidosis in VHA records between 2011-2018
    • Control: VHA use – Matched by age and gender

• Cancer
  – Pancreatic Cancer
  – Case-control study
    • Case (n=34) ICD 9/10 code for pancreatic cancer in VHA records between 2011-2018
    • Control: VHA use – Frequency matched by gender
WHERE ARE WE GOING?

- Improve the Veterans’ experience—access, quality, focus, and engagement
- Deeper science, relevant to the concerns of Veterans and other stakeholders
  - Etiologies—basic science/epidemiology
  - Pathophysiology—clinical research, data and biorepository
  - Prognosis—epidemiology and health services research (HSR)
  - Treatment/management—T1 translation/clinical trials/HSR (epi)
  - Implementation/effectiveness—T2 translation/clinical trials/HSR (implementation)
- Education/Dissemination/Risk Communication
- Policies
HOW WILL THIS RESPONSE TO EXPOSURE CONCERNS BE BETTER?

• Clinical readiness- more proactive approach
• Data capture is better than for earlier cohorts
• Data science and management capabilities are better
• Molecular and ‘omics research capabilities are better
• Recognition of the importance of team science and collaboration
  – Improving access to participation in observational and clinical trials
• Better Veteran engagement
• Recognition of the importance of implementation science
Questions?

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