Introducing the ePCT Case Studies

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Featuring 2 of the 9 NIH Collaboratory Demonstration Projects

• STOP CRC:
  • Strategies and Opportunities to Stop Colorectal Cancer in Priority Populations
  • Gloria Coronado, Co-Principal Investigator

• TSOS:
  • A Policy-Relevant U.S. Trauma Care System Pragmatic Trial for PTSD and Comorbidity (Trauma Survivors Outcomes and Support)
  • Doug Zatzick, Principal Investigator
STOP CRC overview

**Question:** Does an evidence-based, culturally tailored approach increase colorectal cancer (CRC) screening in clinics that serve minority and low-income populations?

**Setting:** 26 federally qualified health center clinics

**Population:** 40,000 adults aged 50-74 with no evidence of recent CRC screening

**Intervention:** Cluster-randomized, EHR-linked, data-driven program tracks eligibility, mails fecal immunochemical test kits, tracks patient test results & follow-up

**Outcome measures:** CRC screening rates by age, sex, insurance status, ethnicity, race

**Relevance:** Results will provide valuable information on how to use EHR resources to optimize guideline-based screening
STOP CRC ePCT characteristics

• Goal: Increase rate of CRC screening in underserved patients

• Pragmatic design:
  • Broad patient eligibility
  • Comparative effectiveness intervention
  • Cluster randomization

• Embedded across 26 federally qualified health centers

• Data driven:
  • Uses EHR to identify eligible patients & generate test kit mailings
  • Uses EHR to track CRC-related outcomes using routine processes of care

• Leverages existing clinic staff
Study snapshot

STOP CRC Activities

What? Who is involved?

Phase 1
- Create learning collaborative
  - Advisory Board (clinicians, policymakers, payers)
  - EMR Specialists
- Develop EMR tools
  - CHR, Virginia Garcia, MCHD, OCHIN, EMR specialists, and clinicians.
- Deliver Intervention
  - Clinics, OCHIN, payers

Phase 2
- Refine the intervention: PDSA
  - CHR, Clinics, OCHIN
- Refine EMR tools
  - Clinics, OCHIN network, policymakers, payers, national organizations, state CRC screening programs
- Spread Research to Practice & Sustain
**TSOS overview**

**Question:** Is a collaborative care intervention more effective than usual care in reducing PTSD and related symptoms and improving physical function?

**Setting:** 25 level I trauma centers across United States

**Population:** 960 adult patients with PTSD and related conditions

**Intervention:** Intervention training & support targets trauma center-based screening and treatment for PTSD and related conditions as well as care coordination from trauma center to primary care & community settings

**Outcome measures:** Change in scores on civilian PTSD checklist, patient health questionnaire depression scale, alcohol use disorders scale & short form physical function scale

**Relevance:** Results will be incorporated in the American College of Surgeons’ regulatory policy for trauma care
TSOS: multiple potentially chronic conditions & the need for trauma center-to-community linkage

Traumatic injury:
  - PTSD, depression, suicidal ideation
  - High-risk behaviors (eg, alcohol)
  - traumatic brain injury, all common

Patients “sail off of a flat earth” after trauma center care

From Darnell & Zatzick TSOS Training Slide Set
TSOS ePCT characteristics

- Goal: Directly inform national trauma care system policy
- Pragmatic design:
  - Comparative effectiveness intervention
  - Stepped-wedge cluster randomization
  - Hybrid effectiveness-implementation framework, emphasizing sustainability
- Embedded in 25 U.S. level I trauma center sites
- Data driven: Uses EHR to conduct high-quality screening of patients
TSOS study snapshot

### TSOS Effectiveness-Implementation Hybrid Pragmatic Trial Framework

<table>
<thead>
<tr>
<th>RE-AIM Evaluation Framework</th>
<th>Adoption</th>
<th>Effectiveness</th>
<th>Implementation</th>
<th>Maintenance</th>
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<tbody>
<tr>
<td>Clinical Trial Frameworks &amp; Classic Theory</td>
<td>Assessment of trauma center site adopter status</td>
<td>Diffusion of Innovation</td>
<td>Diffusion of Innovation</td>
<td>Targets National Trauma Center Adoption</td>
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<tr>
<td>24 sites included</td>
<td>Innovators, laggards, other sites excluded</td>
<td>Effectiveness – Implementation Hybrid Pragmatic Trial</td>
<td>Stepped Wedge Cluster Randomized Trial</td>
<td>Intervention left on, promoting sustainable implementation</td>
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### Multiple Comorbid Conditions
- PTSD
- Depression
- Suicidal ideation
- Alcohol use problems
- Drug use problems
- Traumatic brain injury
- Chronic medical conditions

### Critical Intervention Elements
- Care management
- Motivational interviewing
- Cognitive behavioral therapy elements
- Medications
- Primary care linkage

### Time
- 2011: May ACS/COT Policy Summit
- 2014: ACS/COT PTSD Practice Guideline
- 2019: Protocol Supported ACS/COT Policy Summit

### American College of Surgeons policy summit targeting PTSD and comorbidity guidelines
American College of Surgeons Regulatory Policy
Targeting PTSD & Comorbidity