



# Restorative Rehabilitation

## (A National Effort)



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# Background



- Ideal recovery after trauma
  - Parallel functional, aesthetic, and emotional rehabilitation efforts.
    - Coordinated to occur as a comprehensive all-inclusive rehabilitation effort
  - Ultimate goal is return to pre-injury form and function



# Restorative Care



- Restorative Care = Reversal of injury
  - Medical and Surgical therapies
    - Designed to return the patient to his or her pre-injury state
      - **Revise** wounds
      - **Repair** damages structures
      - **Replace** missing tissue



# Restorative Care



- Restorative Care
  - Complimentary to, but distinct from, traditional rehabilitation
    - Traditional rehabilitation
      - Functional recovery focus
        - » Non-surgeons
          - Surgical disciplines consulted when needed to optimize function
  - Restorative Care
    - Holistic recovery focus
      - » Restorative Disciplines
        - Plastic Surgery, Dermatology, Facial Plastic Surgery, Oculoplastic Surgery, Orthopaedic Hand, Foot & Ankle, Prosthodontics



# Restorative Rehabilitation



- Involves
  - Expanded mission focus
    - Reverse injury
      - Medical & surgical treatments
    - Advance the art and science of Restorative Care
      - Through education, training, and research
  - Restorative Care Team
    - Enduring element of Rehabilitation Program
      - To carry out the mission



# Restorative Rehabilitation



- Involves
  - Addition of Professional Partnerships
    - Other MTF's
    - VA
    - Civilian Centers of Excellence, to:
      - Expand clinical capabilities
        - » Rarely indicated complex cases (VCA)
        - » Emerging therapies
      - Enhance education
        - » Training for surgeons in practice
        - » Fellowships for surgery residents
      - Develop new techniques and solutions for complex problems
        - » Through research



# Restorative Rehabilitation



- Restorative Care Team
  - Civilian Administrative & Clinical Staff
    - Program Manager
    - Admin support
    - Physician Assistant
    - Care Coordinator (Case Manager)
    - Research Coordinator
  - Military Providers
    - Champions from “Restorative” disciplines
      - » Utilized on an ad-hoc basis
        - Adjusted to meet the needs of each individual patient



# CARE is a core component of Rehab Program



- A multi-disciplinary “Restorative” team
  - Within the greater C5 Rehabilitative team

## Components of the Comprehensive Combat & Complex Casualty Care (C5) Program

Polytrauma Care &  
Rehabilitation

Disease/  
Non-Battle Care

Combat Operational  
Stress/  
Psychological  
Health

Family Support

Primary Care

**C.A.R.E  
Program**

Transition  
Services

Amputee Care

TBI Care

Reserve Demob

Medical and Non-Medical Case Management





# Restorative Care (Clinical Algorithm)



- Phases of care
  - Enrollment and eval at start of rehab
    - Treatment plan formulated
    - CARE Coordinator organizes multidisciplinary care
  - Surgical, non-surgical, & emotional support
    - May span months to years
      - Including Veteran care
  - Structured Aftercare
    - Outcomes tracked, follow-up assured
      - Collaboration with VA and Civilian Centers of Excellence



# Restorative Care



- **Clinical**

- Reconstructive surgery
  - Multiple disciplines
- Innovative therapies
  - Regenerative medicine
  - Tissue engineering
  - Stem cell therapy
- Advanced techniques
  - TMR
  - Osseointegration
  - Reconstructive Transplantation



# Restorative Care



- Education

- Surgical training

- Surgeons and Residents in practice
- Deploying surgeons



# Restorative Care



- **Education**

- Annual Educational Summit

- Military & Civilian Pioneers in Restorative Medicine
      - Didactic, Cadaver Workshops, Laser / Scar Training labs

- Collaborative initiatives

- Advanced reconstructive techniques
      - Shared clinical privileges



# Restorative Care



- Research

- Focus on emerging technologies and procedures

- Tissue engineering
- Bio scaffolds
- Immunotolerance for VCA
- Scar prevention
- Advanced prosthetics



# Benefits



- Standardized superior care
  - All MTF programs built the same
    - With same access to civilian and VA partnerships
  - Inclusive training & educational events



# Benefits



- Consistency & Sustainability
  - Administratively run by the MTF's
    - “Deployment proof”
    - “PCS proof”
    - “Retirement proof”



# Benefits



- Drives innovation
  - Military Medicine led program
    - Forward-thinking & proactive
    - 1<sup>st</sup> hand knowledge of challenges and needs
      - Based upon combat / battlefield experience
    - Drives clinical and research agenda
      - Taps into National bank of Resources
        - » Via Professional partnerships





# Benefits



- Builds faith in Military Medicine
  - World leader in Restorative Rehabilitation
    - As viewed by
      - Troops & Line Commanders
      - Families
      - Our Nation and the international community



# Vision (The Future)



- National program
  - MTF's
    - Admin run Multidisciplinary team
      - Integrated into each MTF Rehabilitation program
  - Partnerships
    - Civilian COE's
    - Polytrauma VA's



# Redefining Rehabilitation



- Restorative rehabilitation is a new paradigm
  - Traditional Rehabilitation
    - Has a functional endpoint
    - Multidisciplinary program
      - » Works to optimize function after losses
  - Restorative Rehabilitation
    - Has a holistic optimization endpoint
    - Multidisciplinary Restorative Care team
      - » Focus on correction of appearance
      - » Focus on reversing damage
        - Repair and replace



# Big Picture



- Implementation
  - MTF Restorative Care team
    - 99% of clinical care
    - Education
    - Research
  - Civilian COE Partnerships
    - 1% of clinical care
      - Rarely indicated, high complexity cases
    - Education
      - Advanced techniques
      - Fellowships for Surgeons
    - Research



# Questions?

