Keep them STEADI: Implementation of a Hospital-Based Fall Prevention Program
• 1 out of 3 older adults (65 yrs or greater) fall each year

• In 2010, 2.3 million nonfatal fall injuries among older adults were treated in emergency departments and more than 662,000 of these patients were hospitalized

• In 2010, the direct medical cost of falls, adjusted for inflation, was $30 billion
Level 1 Trauma Center in Dallas, Texas
Annual Trauma Activations ≈ 8,000
Annual Admissions ≈ 4,100

Trauma ≈ 3,500
Burn ≈ 600
# Injury Prevention Approach for Older Adult Falls

## Influencing Policy & Legislation
- Encourage state and local governments to promote policies and programs that help reduce the incidence and risk of falls among older adults
- Support the Texas Driver Responsibility Program to help support designated Trauma Centers across the State provide for uncompensated care

## Changing Organizational Practices
- Support changes to the Texas Trauma Registry System to improve available data on falls
- Work with hospitals and geriatric healthcare providers to implement the CDC Stopping Elderly Accidents, Deaths & Injuries (STEADI) Tool Kit
- Support changes to the Texas Trauma System structure that improve the quality of care provided to geriatric patients, support the continuum of care, and improve efficiencies
- Support the implementation of the Geriatric Trauma Protocol within the Trauma Center at Parkland

## Fostering Coalitions & Networks
- Participate in local coalitions (i.e., Area Agency on Aging, church groups, etc.).
- Promote multidisciplinary RAC membership including recruitment of community members

## Educating Providers
- Educate healthcare providers about the the CDC Stopping Elderly Accidents, Deaths & Injuries (STEADI) Tool Kit
- Available presentation regarding the effects of trauma on the geriatric patient population
- Educating providers regarding available materials to assist with patient education on fall prevention

## Promoting Community Education
- Promote raising awareness of who is at risk for falls within families and the community
- Available presentation / handouts regarding Home Safety Checks
- Participation in local RAC initiatives
- Participation in local safety fairs

## Strengthening Individual Knowledge & Skills
- Utilize social media to educate individuals and families ways to prevent falls among older adults
- Participation in local safety fairs
- CDC Stopping Elderly Accidents, Deaths & Injuries (STEADI) Tool Kit
• Stopping Elderly Accidents, Deaths, & Injuries (STEADI)
• Designed by the CDC for healthcare providers who treat older adults who are at risk of falling or who may have fallen in the past
• Toolkit
• http://www.cdc.gov/homeandrecreationalsafety/Falls/steadi/index.html
• Based on an algorithm adapted from the American and British Geriatric Societies’ Clinical Practice Guidelines
Algorithm for Fall Risk Assessment & Interventions

**Waiting room:** Patient completes *Stay Independent* brochure
- Identify main fall risk factors

**Clinical visit:** Identify patients at risk
- Fell in past year
- Feels unsteady when standing or walking
- Worries about falling
- Scored ≥4 on *Stay Independent* brochure

**Evaluate gait, strength & balance**
- Timed Up and Go
- 30-Sec Chair Stand
- 4 Stage Balance Test

**Gait, strength or balance problem**

**≥2 falls or a fall injury**
- Determine circumstances of latest fall
- Conduct multifactorial risk assessment
  - Review *Stay Independent* brochure
  - Falls history
  - Physical exam
  - Postural dizziness/postural hypotension
  - Cognitive screening
  - Medication review
  - Feet & footwear
  - Uso of mobility aids
  - Visual acuity check

**1 fall in past year**
- Determine circumstances of fall
- Implement key fall interventions
  - Educate patient
  - Enhance strength & balance
  - Improve functional mobility
  - Manage & monitor hypotension
  - Manage medications
  - Address foot problems
  - Vitamin D +/- calcium
  - Optimize vision
  - Optimize home safety

**0 falls in past year**
- No gait, strength or balance problems
- No to all
- Educate patient
- Refer to community exercise, balance, fitness or fall prevention program

**Patient follow-up**
- Review patient education
- Assess & encourage adherence with recommendations
- Discuss & address barriers to adherence
Screen all older patients for falls

CDC

- Brochure *Stay Independent*

Parkland Trauma Center

- Triage

<table>
<thead>
<tr>
<th>Fall/Jump trauma</th>
<th>Fall</th>
<th>Jump</th>
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<tbody>
<tr>
<td>Types</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - 2 ft</td>
<td>more than 5 ft</td>
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<td></td>
<td>3 - 5 ft</td>
<td>6 - 10 ft</td>
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<td>from an animal</td>
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<td></td>
<td>in unknown circumstance</td>
<td>jumping from height</td>
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<tr>
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<td>tripping</td>
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<td>white on a roof</td>
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<tr>
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<td>in unknown circumstances</td>
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<tr>
<td>Safety devices</td>
<td>non-restraining</td>
<td>restraining</td>
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</tbody>
</table>
Identify modifiable fall risk factors

CDC
- Review brochure Stay Independent
- Take a falls history

Parkland Trauma Center
- Mechanism of Injury Review
- Community Paramedic
Evaluate gait, lower body strength & balance – address identified deficits

CDC

• Timed Up & Go Test (recommended); 30-second Chair Stand Test; 4-Stage Balance Test

Parkland

• Order for Physical Medicine & Rehabilitation consult placed on admission
• Evaluation completed and recommendations prior to discharge
Conduct focused physical exam – address modifiable and/or treatable risk factors

CDC

- Addition to customary medical exam - assess muscle tone, screen for cognitive impairment & depression, examine feet & evaluate footwear

Parkland Trauma Center

- Tertiary Physical Exam
- Physical Medicine & Rehabilitation Exam
- SBIRT with Mental Health Screen
Assess for & manage postural hypotension

CDC

- Orthostatic blood pressure assessment
- Medication review
- Brochure *Postural Hypotension, What It Is and How to Manage It*

Parkland Trauma Center

- Routine nursing care
- Medication review
Review & manage medications

CDC
- Attempt to reduce or change psychoactive medications

Parkland Trauma Center
- Medication reconciliation
- Pharmacy medication review
- American Geriatrics Society Beers assessment
  - guideline for healthcare professionals' to help improve the safety of prescribing medications for older adults - emphasizes deprescribing/avoiding specific medications
Integrating Fall Prevention Into Practice

Increase vitamin D

CDC

• Recommend at least 800 IU vitamin D supplementation

Parkland Trauma Center

• Admission orders
• Review by Trauma Advance Practice Providers / Trauma Nurse Clinician
Assess visual acuity & optimize vision

CDC
- Administer brief vision test
- Refer to ophthalmologist or optometrists

Parkland Trauma Center
- Ophthalmologist consult as needed
Address home safety & how to reduce fall hazards

CDC

- Counsel patient about reducing fall hazards
- Brochure *Check for Safety*
- Refer to occupational therapy

Parkland Trauma Center

- Physical Medicine & Rehabilitation consult
- Community Paramedic program
  - Home Assessment Checklist
Educate about what causes falls & how to prevent them

CDC

- Educate patient about fall prevention strategies
- Brochure, *What YOU Can Do to Prevent Falls*
- Recommend exercise or community fall prevention programs

Parkland Trauma Center

- Trauma Advanced Practice Providers / Trauma Nurse Clinicians
- Brochure, *Fall Prevention*
Identify community exercise & fall prevention programs

CDC

- Contact senior services providers & community organizations that provide exercise & fall prevention programs to seniors
- Compile a resource list of available programs

Parkland Trauma Center

- Outpatient therapies as recommended
- Community Paramedic program
- Resource list
Outcomes

Prior to STEADI
- 299 (10 %) ≥ 65 yrs
  - Leading MOI: Fall
    - 193 (65%) ≥ 65 yrs
  - Average age: 77
  - ISS: 1-50, avg 11.20
    - moderate injury
  - Median LOS: 7.9 days
    - 46.8 % discharge home

With STEADI
- 266 (10%) ≥ 65 yrs
  - Leading MOI: Fall
    - 165 (62%) ≥ 65 yrs
  - Average age: 77
  - ISS: 1-43, avg 12.22
    - moderate injury
  - Median LOS: 6.5 days*
    - 54.5% discharged home*

* p < 0.01
• Increasing knowledge by staff members regarding the severity of geriatric trauma
• Advancing clinical practice guidelines
• Better integration of services
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