Law Enforcement’s Identification and Referral of Medically Impaired Older Drivers

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Presenters

• Linda Hill, MD, MPH
  • Department of Family and Preventive Medicine
  • University of California, San Diego

• D. R. “Ike” Iketani
  • Assistant Chief (Retired), California Highway Patrol
  • Consultant, University of California, San Diego

NHTSA Priority

NHTSA’s Older Driver Program 5 Year Strategic Plan 2012-2017:

Addresses the “need for law enforcement to have more training and information to help them better assess warning signs and understand what next steps to take and what actions are mandated by laws within their jurisdiction.”

Collaboration

Licensing Agency
DMV
Medical Professionals
UCSD
Law Enforcement
CHP

Presentation Overview

• Overview of Law Enforcement Curriculum
• Development and Validation of a Roadside Tool to Assess for Cognitive Impairment
• Demonstration of Methods to Assist with Identification of Impairments in Older Drivers
• Referrals for Driver Re-Examination
• Program Evaluation and Conclusions

TREDS Training Curriculum

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning Objective Officer will understand</th>
<th>Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging and Medical Conditions</td>
<td>How age-related changes in health and functional status impair driving ability and increase crash risk</td>
<td>Physician</td>
</tr>
<tr>
<td>Older Driver: Traffic Stop</td>
<td>Approaches to Identifying Impairment in older drivers</td>
<td>Law Enforcement</td>
</tr>
<tr>
<td>Driver Re-Examination</td>
<td>Enforcement actions for documenting suspected impairment</td>
<td>Department of Motor Vehicles</td>
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<tr>
<td>Driver Education and Evaluation</td>
<td>Resources to assist aging drivers maintain mobility</td>
<td>Health Educator</td>
</tr>
</tbody>
</table>
Our Aging Population

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>0-4</td>
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<tr>
<td>5-9</td>
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<td>10-14</td>
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<td>15-19</td>
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<td>20-24</td>
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<td>25-29</td>
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<td>60-64</td>
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<td>65-69</td>
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<td>70-74</td>
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<td>75-79</td>
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<tr>
<td>80-84</td>
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<tr>
<td>85+</td>
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</tbody>
</table>

By 2030, 70 million (1 out of every 5) Americans will be over age 65 (NIH, 2013)

85-90% of this age group will be licensed to drive (AAA, 2013)

An average of 500 older adults are injured every day in crashes (CDC, 2013)

Strengths of Older Drivers

General Characteristics of Older Drivers
- Take fewer risks
- More patient
- Possess greater life experience and knowledge of how actions impact others
- More compliant with the law

Self-Regulating Practices

Some older drivers self-regulate their driving
- Reducing driving exposure (e.g. fewer trips)
- Avoid certain driving conditions (e.g. bad weather, making left turns and times of heavy traffic)
- Women tend to self-regulate more than men (Kostyniuk & Molnar, 2008)

Health and Aging Concerns

Older adults are dependent on alternative transportation after driving retirement:
- Men for 7 years
- Women for 10 years

Problems related to age can include:
- Reduced vision
- Cognitive impairment
- Decreased strength and mobility
- Other medical conditions and medications can impair driving

Vision Changes with Aging

Reduction in Visual Acuity
- Only 1.5% of people between 65 and 69 years of age are visually impaired
- 24% of those over 80 years of age are visually impaired after their best correction attempt
Reduction in Visual Fields

Reduced ability to see objects to the side when the eyes are focused forward

Macular Degeneration

Deterioration of the central portion of the retina

Reduced Strength & Frailty

Aging can affect strength and frailty due to:
- Muscle mass reduction
- Increase in bone fragility
- Diseases such as arthritis
- Frailty increases crash risk
- The passengers with older drivers also tend to be older adults; frail and at increased risk of injury or fatality

Frailty Data


Dementia

- Dementia is a general term for loss of cognitive function
- Multiple causes:
  - Progressive degeneration such as Alzheimer’s (the most common cause)
  - Brain tumor
  - Stroke (large or ‘mini’ strokes)
  - Lack of oxygen to the brain such as near drowning or overdose

Cognitive Impairment

Many conditions resulting in cognitive impairment are age-related and under-diagnosed

Prevalence rates rise significantly with age:
- 65 - 74 years: 2.4%
- 75 - 84 years: 11%
- Greater than 85 years: 34.5 - 50%
Clock Drawing

Clock Examples

Common Driving Errors

- Inadequate scanning of roadways
- Difficulty staying in same lane
- Difficulty making left turns and selecting correct lane when turning
- Inappropriate or delayed stopping
- Lane changes without signaling
- Pedal misapplication
- Failure to yield or respond appropriately to road signs or signals

Age/ Annual Miles Driven

Fatalities/ Miles With Age

Fatalities Per Million By Age

Motor vehicle crash deaths per 100,000 people by age and gender, 2011 [http://www.nhts.org]
Physician’s Guide

- American Medical Association & National Highway Traffic Safety Administration (NHTSA)
- "Physician’s Guide to Assessing and Counseling Older Drivers"
  - Quick screening and referral tool
  - Available at: http://www.ama-assn.org/go/olderdrivers

States with Mandated Physician Reporting

California
Georgia
New Jersey
Delaware
Maine
Nevada
Oregon
Pennsylvania

Driver Orientation Screen for Cognitive Impairment (DOSCI)

Step One: Rule Out DUI vs. Medical Conditions

- Intoxication from alcohol, prescription medication, illicit drugs, or other impairing substances
- Urgent medical conditions

Step Two: Nine Questions

- What is your date of birth? (-1 pt)
- What is your full three-letter zip code? (-2 pts)
- What year were you born? (-3 pts)
- What is your mailing address? (-4 pts)
- What is your address today? (-5 pts)
- What time did you go to bed last night? (-6 pts)
- What day of the week is it? (-7 pts)
- What is today's date? (-8 pts)
- How many do you drive per week? (-9 pts)

Step Three: Scoring Criteria

- 5 or more incorrect: Priority re-exam
- 3 or more incorrect: Regular or Priority re-exam
- 0-2 incorrect: No referral or re-exam
**Video:** Recognizing Cognitive Impairment in Drivers

Developed by TREDS
Training, Research and Education for Driving Safety
UC San Diego School of Medicine
treds.ucsd.edu

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**Discussion**

How many of you would complete a Request for Re-examination for Mr. Jones?

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**California Re-exam Options**

- **Priority Re-exam**
  - Evidence of physical or mental incapacity
  - Violation must be observed or confirmed during investigation of a collision

- **Regular Re-exam**
  - Not immediate traffic safety threat
  - Observed or Not; reported, second or third hand physical incapacitation, confusion or disorientation

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**Mr. Jones’ Errors**

- 32

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**Mr. Jones’ Results**

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**Mr. Jones’ Re-exam Form**

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Observations

• Pulled out in front of another vehicle
• Straddled lane lines/crossed double yellow lines
• Slow to yield/respond to lights; stopped abruptly in traffic lane
• Not driving in direction of destination; daughter confirmed father has been lost previously
• Forgetful during conversation
• Unable to correctly state: date, year, day of week, city, current time and current address

DMV Re-exam Process

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<td>Officer gives notice to driver (pink copy)</td>
<td>Officer faxes DS 427 to DMV DSO</td>
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<tr>
<td>5 days to report to DMV</td>
<td>DMV contacts driver</td>
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Interview with Driver Safety Officer (DSO)

DMV requires all of these:
• Medical evaluation
• Visual testing
• Written testing
• Supplemental driving test

If 'priority' box is checked, cannot be downgraded to a 'regular'

Law Enforcement Role

• Conduct/document traffic stops
• Source for helpful aging driver information
• Identify and refer at-risk drivers to licensing agencies

Importance to Law Enforcement

• Older drivers overrepresented in intersection collisions (left turns, right of way)
• Often exhibit erratic driving behaviors resembling DUI, attracting Law Enforcement attention
• Difficult to distinguish cognitive impairment during traffic stop without targeted assessment
• Law Enforcement traditionally lenient with older driver violators
• Re-exam reporting more effective when supported by objective data
• Law Enforcement can issue re-exam referrals for suspected medical conditions, but process is underutilized

Importance of Re-exam Referrals

• Documentation; tracking this history determines developing patterns of unsafe driving
• Important to:
  – Law enforcement
  – DMV
  – Driver’s family - contact with law enforcement is often a call to action for family intervention
  – Physician and others working to keep the individual safe

DMV Senior Driver Ombudsman

• Role of the Ombudsman is to help seniors keep driving as long as they can do so safely
• Help navigate the DMV process
• Work with people to include those with disabilities, strokes, head injuries, etc.
• https://www.dmv.ca.gov/about/senior/senior_ombudsman.htm

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DOSCI Usefulness

- 89% of officers responded they were likely or very likely to incorporate the DOSCI into their assessment of older drivers
- 92% of officers responded that the results of the DOSCI will help in preparing the DMV "Notice for Priority Re-Examination of Driver"

Results are based on 1,878 Law Enforcement Officers trained between January 2011 and August 2013.

Work in Progress

- Gaining knowledge of DMV processes for reexamination
- Expanding understanding of DMV actions/restrictions
- Learning to provide resource/referral information

Law Enforcement Training

- Validated process
- Developed with collaborative partnerships
- Using personal experiences
- To identify skill deterioration and cognitive impairment

Conclusions

- Age-related driving impairment is a serious and growing public health problem
- Law Enforcement can play a major role in the identification and referral of impaired drivers
- Training curriculum resulted in significant changes to knowledge, attitude and intent
- Law Enforcement feedback was positive at all levels of experience
- California Peace Officers Standards and Training (POST) has certified the training for two hours CPT credit

Contact

Jill Rybar, MPH
Deputy Director
jrybar@ucsd.edu
858-534-9313
treds.ucsd.edu