A Statewide Approach to Capturing Motorized Dockless Scooter Injuries

Kevin Rix, MPH
Courtney Edwards, DNP, MPH, RN
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Texas Governor’s EMS Trauma Advisory Council, Injury Prevention and Public Education Committee
Austin Public Health e-scooter study

- Austin’s first e-scooter appears in April 2018
- Austin Public Health contacts Centers for Disease Control and Prevention to assist with Syndromic Surveillance study of scooter injuries.
- Study identified 271 injured riders. Reviewed 190 cases (125 interviewed, 65 medical chart reviews)
- Developed 2 Recommendations for future work on dockless e-scooter work.
So you just heard about the Austin Public Health/CDC Project.

RECOMMENDATION

Considering the limitations and the study findings, Austin Public Health proposes the following:

1) Establish and strengthen injury surveillance related to emerging transportation vehicles. Questions will be asked about the risk of and types of injuries associated with the potential increased use of electric scooters, electric skateboards, unicycles, and Segway-type vehicles. Routine surveillance for injuries will be needed.

2) Increase the frequency and methods of educational messages on safe e-scooter riding practices. These educational messages should emphasize both wearing a helmet and maintaining a safe speed while riding an e-scooter. Educational messages should especially target young adults 18 to 29 years of age.
Why is it important to have consistent data with new technology?

1. Patient Identification
2. Correct assignment of injury mechanisms
3. Consistency with language and verbiage
4. Epidemiological Research
5. Injury Pattern and Severity Research
6. Consistency across trauma registries and registrars
7. Injury Prevention Interventions
What's First? The Internal Search

Dell Seton Medical Center at the University of Texas, Austin, TX

Parkland Memorial Hospital, Dallas, TX
Dell Seton Medical Center-Austin, TX
Adult Level 1 Trauma Center
(May 2018-January 2020)

1st Reported Death in Austin, February 2, 2019

Similar mobility death February 6, 2019.

N=65 Admissions
Parkland Hospital – Dallas, TX Adult Level 1 Trauma Center (October 2018-December 2018)

73% planned for surgical repair required of injuries

Time of Arrival

4th Qtr 2018: N=15

- Abdominal: 6%
- Head: 6%
- Upper Extremity: 6%
- Lower Extremity: 19%
- Thoracic: 63%

7am - 11am: 0
11am - 3pm: 1
3pm - 7pm: 2
7pm - 11pm: 3
11pm - 3am: 4
3am - 7am: 5
Here’s the big question... Did we look at the same data?
ICD-10 CM Has the answers!... Or Does it?

• Typically the ICD-10CM codes are a hospital's best friend for data… Right?

• But what happens when the thing want to code didn’t exist when the codes were created?
So we have some options you say?

V00.14 Accident on Other scooter (nonmotorized)

V00.18 Accident on other rolling-type pedestrian conveyance

V00.38 Other flat-bottom pedestrian conveyance

V00.83 Accident with motorized mobility scooter

V87.8 other specified non-collision transport accidents involving motor vehicle (traffic)

V00.89 Accident on other pedestrian conveyance
How do we know we are telling the same story?

- 22 Trauma Service Areas in Texas
- GETAC Injury Prevention and Public Education Committee allows launched state wide survey through Regional Advisory Councils (RACs)
- RACs are composed of both hospital and pre-hospital community organizations
Who Responded? (N=85)

- Pre-Hospital: 46%
- Hospital: 53%
- Other: 1%
Hospital Breakdown

- Level 1: 27%
- Level 2: 27%
- Level 3: 14%
- Level 4: 18%
- In-Pursuit: 5%
- None: 9%

- Adult and Pediatric: 70%
- Adult Only: 25%
- Pediatric Only: 5%
Pre-Hospital Breakdown

EMS: 85%

Fire Department: 13%

Other: 2%

Urban: 22%

Suburban: 27%

Rural: 51%
Keep in mind, Texas is BIG.

As of March 2019 Are Motorized Dockless Scooters Present in your area? (in percent)
Remember our first step to look at our data?

If you were interested, are you currently able to abstract from a local database, information on the patients your organization has cared for who have been injured in a scooter crash? (in percent)
When a person presents to your hospital as a result of a motorized dockless scooter related injury, what ICD-10 code are you using to capture the injury?

- V00.18: 2%
- V00.83: 5%
- V00.89: 5%
- Other: 10%
- I do not know: 78%

Other: 10%
V00.18: 2%
V00.83: 5%
V00.89: 5%
I do not know: 78%
Would you be supportive of a universal code being recommended to be used among all trauma centers to identify motorized dockless scooter related injuries?
Would you be supportive of a universal code being recommended to be used among all EMS agencies to identify motorized dockless scooter related injuries?
Given this information, What did we do?
So what did we decided on?

- Accident on other rolling-type pedestrian conveyance
- Falling from other rolling-type pedestrian conveyance
- Pedestrian on other rolling-type pedestrian conveyance colliding with stationary object
- Other accident on other rolling-type pedestrian conveyance
So why not the others?

V00.83  Accident with motorized mobility scooter
V00.832 Accident on other pedestrian conveyance
V00.838 

The word “mobility” has specific meaning as for the type of scooter that is being used at the time of the injury.

This code is more general than the previously mentioned V00.18 as it removes the word “rolling” from the injury mechanism.
And These?

V87.8  other specified noncollision transport accidents involving motor vehicle (traffic)

Question whether the event involved a collision or not?

V00.141  Other scooter (nonmotorized)

Negates the power of the motor

V00.142

V00.148

V00.381  Other flat-bottom pedestrian conveyance

V00.382

V00.388
Was this correct?

For Us? 

For You? 

Probably, But Maybe No?
Since this time

- ICD-10 CM codes for Dockless E-Scooters have been presented/promoted for the launch of the October 2020 ICD-10CM code update.
Implications for Retrospective Studies

- E-Scooters from existence in your community to October 2020~How will you know how many events and injuries happened?
- Just cause new codes are coming doesn’t mean you can neglect what has already happened.
Implications for New and Emerging Transportation Technologies

1. **NEW TECH WE DON’T EVEN KNOW ABOUT IS COMING!**

2. Make sure everyone is on the same page knowing what we are talking about.

3. Decide with other stakeholders as early as possible on one coding system universally in your area.

4. Ensure that this is taken to decision makers and people who can push the information out.

5. Collaborate to ensure everyone stays on the same page.

Underwater bicycles and bicycle lanes? Dockless Pogo Sticks?
How improved data improves our prevention efforts.
Strategies In Discussion and place in Austin, TX

❖ Limiting Location Scooters can be used
❖ Limiting the infrastructure scooters can be used on
❖ Geofencing Areas of the city to reduce speeds or eliminate use
❖ Reclassifying Device Categories
❖ Adding Helmet Distribution Devices and disposable helmets
❖ Enforcement of current rules and laws by police officers.
Conclusion

Until we have a specific designated codes, we all need to work to be on the same page, so our work can have meaning and we can feel confident that the decisions we’re making are based on our evidence and data.
Thank you!
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