IMPROVING DRIVING INSTRUCTIONS FOR ADOLESCENT DRIVERS WITH CONCUSSIONS

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Category: Patient Safety

Background
Motor vehicle accidents are the leading cause of death in adolescents. Concussions are common in adolescents and symptoms can affect driving safety. Preece et al. showed impairment in hazard perception in concussed adults and recommended no driving for at least 24 hours. While the CDC recommends that adults get counseled on driving during concussion treatment, there is no such recommendation for adolescent drivers who are less experienced and likely more vulnerable when concussed. As pediatric sports medicine specialists, we felt it was important for us to begin counseling our patients regarding driving recommendations in the setting of concussion.

Objectives
Our goal was to provide driving instructions to patients presenting with a new concussion. Our AIM statement was: by the end of 3 months, 75% of patients over the age of 15 years with a concussion presenting to Texas Children's Sports Medicine Clinic will receive driving recommendations in their patient instructions at the initial concussion visit.

Methods
We created an EHR smart phrase to be used with patients 15 years or older presenting for an initial concussion visit. The phrase included a hard-stop where the provider would have to give driving instructions. We were accepted for MOC credit through Texas Children's Hospital. We completed pre-project education with all seven providers and implemented the new smart phrase on September 1st 2017.

Results
In the five months that we have collected data, 151 patients met the criteria for inclusion. After implementation, our goal of providing driving recommendations to 75% of concussed patients had been met by the end of the second month. This progress was maintained during months three and five. A drop to 58% was observed in month four. We plan to continue collecting data for at least four additional months.

Discussion
Overall, our goal of providing recommendations to 75% of patients was met fairly quickly. We attribute this success to careful design, proactive providers, and general ease of use. There was a noticeable drop to 58% in December that was likely due to the holidays, less concussions overall, and inconsistencies in provider usage. We plan to continue working with individual providers to increase use with the ultimate goal of the majority of drivers receiving counseling. Once this process has become well established in the sports medicine clinic, we would like to expand to other sites that treat concussions. We believe this intervention will improve driving safety in this vulnerable population.