

217 A Brief Assessment and Prognosis of Cognitive and Physical Disabilities for Elderly ED Patients

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Background: As more Americans reach old age, the demand for health care increases often outpacing service availability. Persons over 75 have a high ED visit rate at 60.2 visits/100 persons, accounting for 10.2 million visits. Patients over 65 are disproportionately admitted from the ED. Admission results in deleterious outcomes unrelated to presentation such as an increase in infections, disorientation, and risk of falls. Elderly patients presenting to the ED require an assessment of their functional and cognitive status. Current disability measures used to assess functional and cognitive status are onerous, unreliable, and invalid. Discharged patients with low functional status and no outpatient follow up have more repeat ED visits. Identifying disabilities and their root causes will lead to improved care while decreasing unnecessary ED visits.

Objectives: To improve geriatric patient outcomes in EDs by modifying, validating, and testing a disability screening and prognostic tool and providing clinicians with usable point-of-care tools using health information technology.

Methods: Using random retrospective data (n=200), random prospective data (n=100) and an interdisciplinary panel of experts, we developed an instrument with several hundred disability indicators. We tested our instrument on 600 random geriatric ED patients. Data were modeled using Rasch analysis using infit and outfit statistics to develop a geriatric disability screening and prognostic test.

Results: 200 indicators were modeled using Rasch analysis to create a screening and prognostic tool with superior psychometric properties that resulted in a final list of 4 indicators and 3 follow up questions. The validation data for the assessment tool was significant at p<.0001. The prognosis was developed using ROC significant at p<.001. The time to completion was significant at p<.0001.

Conclusion: The tool takes 90 seconds versus 1 hour p< .0001 compared to the current golden standard for geriatric disability

Study ID# 912

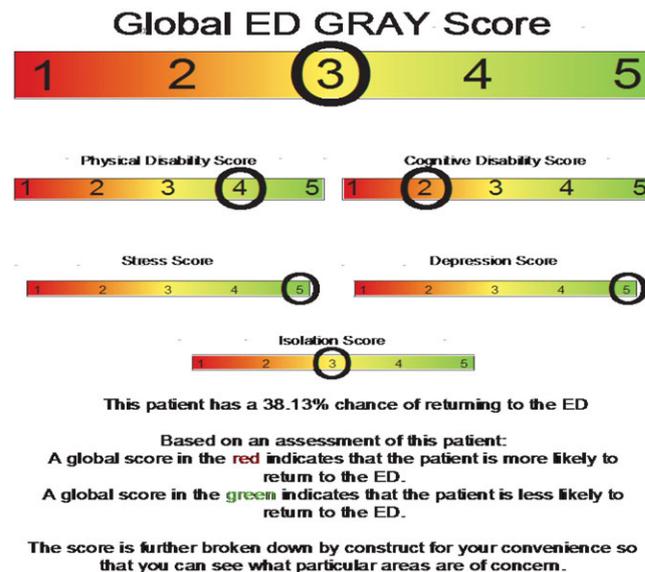


Figure 217 – Post

screening. The screen and prognosis are conducted at point-of-care and instantly provide a user-friendly graphic with prognostic score of death, admit, or recidivate to the ED at 30, 60, and 90 days.

218 Active Treatment of Psychiatric Patients in the ED Decreases Inpatient Psychiatric Admission Rates and ED Length of Stay

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Background: There is a national psychiatric ED boarding crisis. 6-12% of all US ED visits are related to psychiatric complaints. Length of stay for these patients is at least double that of non-psychiatric patients who present to the ED. The typical ED model for psychiatric care is assessment of patients, and then boarding with minimal treatment until an inpatient psychiatric bed is available.

Objectives: The objective was to evaluate the impact of a standardized protocol of active treatment of psychiatric patients on inpatient psychiatric admission rates and ED length of stay.

Methods: This was a before and after study of all patients presenting to a high volume inner city ED with a psychiatric consultation requested. This ED is impacted by a lack of community inpatient psychiatric beds and outpatient services. This review compared inpatient psychiatric admission rates and ED length of stay before and after an intervention where a full time ED based psychiatrist was staffed and pathways for care were developed that included medication initiation and titration, case management, and discharge planning. Data was collected from electronic health records through abstraction of cases identified by a configured automated report from April 2012 to March 2015 of all patients with a psychiatric consultation in the ED.

Results: A total of 8972 patients were seen during the study period. 5738 records were evaluated from April 2012 to March 2014, which was prior to the implementation of the intervention. 3234 records were evaluated from April 2014 to March 2015, which was after the intervention. The inpatient psychiatric admission rate for the pre intervention group was 45% and post intervention group was 36% (p-value <0.05). ED length of stay, regardless of disposition, decreased from 16.54 hours to 16.17 hours (2.7% decrease) despite an increase in average monthly census from 239 patients to 269 patients (12.7% increase).

Table 1 Demographic Distribution

	Demographics (N=600)	Percent
Age		
Years (mean ± std dev)		
Gender		
Male	267	45
Female	333	56
Ethnicity		
Hispanic	21	4
Not Hispanic	570	95
Unknown	9	2
Race		
White	485	81
Black or African American	96	16
Asian	2	0
Native Hawaiian	1	0
More than one Race	1	0
Unknown or Not Reported	15	3
Marital Status		
Currently Married and Living Together	272	45
Unmarried and Living Together	3	1
Never Married	1	0
Single	68	11
Separated	5	1
Divorced	64	11
Widowed	87	15
Education Level		
Less than High School	27	5
Some High School	88	15
Completed High School or GED	181	30
Some College	114	19
Completed College	190	32
Current Living Situation		
On my own	218	36
Spouse	241	40
Children	93	16
Other	48	8
Insurance		
Medicare + Medicaid	171	29

Table 217: Post.

Conclusion: Active treatment in the ED with medication initiation and titration, case management, and discharge planning significantly decreases inpatient psychiatric admission rates and reduces ED length of stay.

219 An Examination of Risk Factors for the Development of Posttraumatic Stress Symptoms in Acute Coronary Syndrome Patients

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Background: For some patients, the experience an acute coronary syndrome (ACS) event is a stressful psychological experience. Among such patients, posttraumatic stress symptoms (PSS) may follow their medical event. These patients have increased ACS recurrence and mortality risk. Little is known about what factors may predispose patients to developing PSS following an ACS event.

Objectives: Our study sought to determine what pre-existing factors were associated with increased PSS symptoms in patients. Specifically, we were interested if pre-existing mental health conditions were associated with increased risk for PSS symptoms following an ACS event.

Methods: We enrolled 531 patients (age 61.2 12.6; 53% men) admitted to the ED with a provisional diagnosis of acute coronary syndrome (ACS); 33% received a final discharge diagnosis of ACS, resulting in 175 patients for our study. Patients completed a battery of surveys including their perceptions of threat (the subjective sense of danger and vulnerability), current stress, medical comorbidities and pre-existing mental health history. We assessed PSS symptoms by interview at 1 month post-discharge.

Results: We conducted a path analysis to determine the direct and indirect effects of risk factors on 1-month PSS symptoms. The model was an excellent fit to the data, $\chi^2(8)=5.12, p=.75$; CFI=1.0; RMSEA=0.00 (90% CI=.00-.05, PClose=.99). The variable with the largest standardized total effect (i.e., direct and indirect effects) on 1-month PSS symptoms was inpatient acute stress symptoms (.34), followed by pre-ACS PTSD symptoms (.31), and pre-ACS depressive symptoms (.28). More than half of the total effect of both pre-ACS PTSD (55%) and pre-ACS depression (54%) was attributable to indirect effects through ED threat perceptions and acute stress.

Conclusion: Pre-existing PTSD and depression was associated with increased risk for PSS symptoms. Such data can be used to potentially help identify patients at increased risk for development of PSS symptoms following a cardiac event.

220 The Effect of Clinician-Patient Communication on Posttraumatic Stress Symptoms in ACS Patients

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Background: Evaluation for a potentially life-threatening cardiac event in the emergency department (ED) is a stressful experience that can result in symptoms of posttraumatic stress disorder, which are associated with increased risk of morbidity and mortality in patients. No study has tested whether good clinician-patient communication in the ED is associated with better psychological outcomes in these individuals and whether it can mitigate other risk factors for posttraumatic stress symptoms (PSS) such as perception of life threat and vulnerability in the ED.

Objectives: The goal of this study was to investigate the relationship between clinician-patient communication and subsequent PSS in a population of patients being evaluated for possible ACS

Methods: Data were analyzed from 474 participants in the REactions to Acute Care and Hospitalization (REACH) study, an observational cohort study of ED predictors of medical and psychological outcomes after evaluation for suspected ACS. Participants reported threat perceptions in the ED and provided information on clinician-patient communication using the Interpersonal Process of Care Survey. PSS were assessed using the Acute Stress Disorder Scale during follow-up.

Results: Good clinician-patient communication in the ED was associated with lower PSS ($\beta=-0.11, p=.005$), whereas increased threat perception was associated with higher PSS ($\beta=0.40, p<0.001$). A significant interaction between clinician-patient communication and threat perception on PSS ($\beta=-0.13, p=.037$) suggested that patients with higher threat perception benefited most from good clinician-patient communication.

Conclusion: Good clinician-patient communication in the ED during evaluation for potentially life threatening cardiac events may help offset risk for subsequent posttraumatic stress reactions. This benefit is particularly marked for patients who perceive the greatest degree of life threat and vulnerability during evaluation.

221 Pediatric Ambulance Use in the United States: The Role of Health Insurance

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Background: Rapidly rising healthcare costs require a thorough analysis of all the components of care. Ambulance utilization for low acuity cases represent significant healthcare costs. Previous studies of adult patients with public insurance or without private insurance have demonstrate that they are more likely to use an ambulance and for non-urgent conditions. Previous studies of pediatric ambulance utilization have been limited in generalizability by relying on individual hospital or single statewide databases.

Objectives: The purpose of this study was to describe pediatric ambulance utilization and its association with specific health insurances and urgency in the National Hospital Ambulatory Medical Survey (NHAMCS) database.

Methods: NHAMCS data between 2008 to 2010 for all pediatric (age <19 years) patients were analyzed. Multivariate logistic regression was used model ambulance utilization on insurance status while controlling variability in demographics and severity levels.

Results: A total of 25,215 pediatric ED visits were included representing a national sample of approximately 97,341,191 million ED visits between 2008-2010. Non-insured (9.9%) compared to privately insured (6.6%) children had significantly higher rates of ambulance utilization. No significant difference in ambulance utilization was noted between those with public (5.9%) versus private (6.6%) insurance. Even after controlling for demographic and severity variables the adjusted odds ratio (1.64, 95% CI 1.28-2.10, $p<0.05$) still identified insurance status as an independent predictor of ambulance utilization. In addition, older children (12-18 years), black, residing in urban areas or the Northeast also had significantly higher odds of ambulance utilization.

Conclusion: Similar to adult patients, uninsured versus insured pediatric patients have increased ambulance utilization. However, the type of insurance (public vs. private) did not affect pediatric ambulance utilization. Health policies that facilitate continuous insurance coverage for children may be one way to maximize resource utilization in regards to ambulance use.

222 Potentially Avoidable Pediatric Transfer is a Costly Burden for Rural Families

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