"EMS Treatment of CHF: How Well Do We Do?"

Karin E. Westman*, College of Charleston

Background: Reported error rates in out-of-hospital (OOH) diagnosis of CHF range from 12-40%, using ALS provider diagnosis.

Objectives: To determine the error rates in OOH diagnosis for CHF based on choice of ALS treatment.

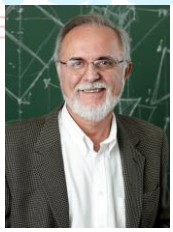
Methods: Respective case series: convenience sample of OOH and emergency department (ED) records on patients 50 and older who received OOH care for respiratory distress. Dates: January 1, 2001 through June 30, 2002. Filed intubated patients were excluded. OOH treatment for CHF defined as treatment for older patients (>=50) with the complaint of respiratory distress with furosemide, nitroglycerine (NTG), or morphine sulfate (MS). ED Diagnosis was defined as one of the first three ED diagnoses as CHF or pulmonary edema.

Results: 310 matching charts with complete data. 70 patients were treated with one or more of the target treatments: 5 patients received the MS, 46 received the furosemide, and 53 received NTG, 96 patients received an ED diagnosis of CHF or pulmonary edema. Sensitivity=0.357 (35/98); Specificity= 0.835 (177/212); treated for CHF but did not have (false positive rate)=0.165 (35/212); Not treated for CHF but had it (false negative rate)= 0.642 (63/98); agreement=0.684 (kappa=0.21, p<0.001).

Conclusion: Both over and under-treatment of CHF in older patients with respiratory distress remains a problem, even when field diagnosis is not required. Clinical decision rules may be useful in this regard. Until the treatment accuracy can be improved, limit treatment to those in severe distress (benefits outweigh risks of erroneous treatment), or long transport times.

Keywords: Out-of-hospital (OOH, Respiratory distress, Furosemide, Nitroglycerine, Morphine sulfate and ED Diagnosis

Biography:



Prof. Enlard Egah is a Professor in the Paul School of Chemical Science & Engineering at the University of XXXXXX where he has been a faculty member since 2003. He is the XXXXXXXX School's Deputy Director. From 2013–2018, he held the XXXXXX Professorship for Innovation in Engineering Education.
Dan completed his Ph.D. at Cornell University and his undergraduate studies at YYYYY University. His research interests lie in the area of programming languages, ranging from theory to design to implementation. He has collaborated actively with researchers in several other disciplines of computer science, particularly computer architecture on problems at the hardware/software interface.
Dan has served on roughly thirty conference and workshop program committees and served as the Program Chair for PLDI 2018. He has served on the ACM SIGPLAN Executive Committee, the Steering Committee for the ACM / IEEE-CS 2013 Computer Science Curriculum, and the ACM Education Board. He currently serves on the CRA Board.
Dan is the instructor for a popular MOOC on undergraduate topics in programming languages and functional programming.
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