UPSTREAM CRISIS INTERVENTION
GRADY MEMORIAL HOSPITAL

Publication Year: 2013

Summary:

Pilot model to reduce unnecessary ED visits by providing the patient with an alternate disposition from the traditional EMS to ED transport while ensuring a conservative approach to patient safety.

Hospital: Grady Memorial Hospital

Location: Atlanta, GA

Contact: Michael Colman, Director EMS Operations, mcolman@gmh.edu

Category:

- C: Clinician Initial Evaluation &Throughput

Key Words:

- Care Manager
- Consults
- Continuity of Care
- Crowding
- EMS
- Frequent Flyer
- Patient Satisfaction

Hospital Metrics:

- Annual ED Volume: 120,000
- Hospital Beds: 953
- Ownership: Public
- Trauma Level: 1
- Teaching Status: Yes

Tools Provided:

- N/A

Clinical Areas Affected:

- Ancillary Departments
- Emergency Department

Staff Involved:

- Administrators
- Ancillary Departments
- ED Staff
- Physicians
- Social Workers

Innovation

Eve H. Byrd, MSN, MPH, Exec. Dir., Fuqua Center for Late-LIfe Depression, Associate Vice Chair, Community Services Development Emory Dept of Psychiatry/ Grady Health System; Michael Colman, MPH, Director EMS Operations; Arthur Yancey, MD, MPH, Grady EMS Medical Director; C. Nee-Kofi Mould-Millman, MD, Fellow of Prehospital and Disaster Medicine, Grady EMS Associate Medical Director; Wendy Martinez Schneider, LPC, Director of Community Services for Georgia Behavioral Health Link; Samantha R. Johnson, Esq. Associate General Counsel Grady Health System Office of Legal Affairs; Yolanda Rich MBA, FHFMA, CHC Vice President of Compliance Chief Compliance and Privacy Officer Grady Health System; William McDonald, MD Emory Psychiatry; Michael Claeys, Executive Director Behavior Health, Grady Health System; Craig Tindal, Senior Vice President, Grady Health System; William Compton, Vice President of EMS, Grady Health System; Asher Morris, Jami Burr, Timothy Isaacs: Grady field Paramedics; Megan Gillis, LCSW BHL Mobile Crisis Region 3 Supervisor; Mandy Mercer, LCSW: Community Services Manager Behavioral Health Link; Mark Livingston, LPC: Director of Crisis and Access Services for Georgia Behavioral Health Link; Chris Andrews; Gerrilyn Levy; Mandy Mercer; Kim Gardner; Naomi Black; Cassandra Donnelly, MD, Fellow; Tina Wright, Grady EMS QA Officer; Kimberly Dawn Brand, Grady EMS QA Officer

The authors also would like to acknowledge institutional support from the following organizations: Grady Memorial Hospital, Behavioral Health, Morehouse School of Medicine, Emory School of Medicine, The Satcher Health Leadership Institute

Nationally, 9-1-1 Emergency Medical Services (EMS) systems are strained by serving large and increasing volumes of callers with the same or shrinking response resources due to the pressure for efficiency in an austere, economic, public funding environment. One focus of published literature has been on a small, but influential group of frequent users who disproportionally request 9-1-1 EMS resources, for reasons researched to be mainly related to substance abuse, mental illness, homelessness, and some combination thereof. The Upstream Crisis Intervention pilot targeted 9-1-1 calls for patients with mental health complaints. Inappropriate use of hospital-based crisis intervention services, as opposed to alternate outpatient levels of care, results in inefficient use of expensive, limited resources and contributes to secondary problems such as emergency department boarding and subsequent overcrowding, adverse events such as staff and patient injuries, prolonged length of stay, and workforce attrition due to burnout.

Grady EMS partnered with GHS Behavior Health, Morehouse School of Medicine, our Emory EMS Medical Directors and the Mobile Crisis Team operated by Behavioral Health Link (BHL) which also operates the Georgia Crisis and Access Line (GCAL) to identify all potential solutions to provide patients with the most appropriate care and transport to the most appropriate facility. This team drafted a pilot model to reduce unnecessary ED visits by providing the patient with an alternate disposition from the traditional EMS to ED transport while ensuring a conservative approach to patient safety. On Monday January 14, we began a pilot where a Grady EMS Medical First Responder (MFR) unit (7070) co-respond (MFR and ambulance) to psychiatric calls; triaged through the National Academy of Emergency Medical Dispatch NAEMD category 25 (psychiatric / suicide attempt), self-dispatch to any calls identified through the Computer Aided Dispatch (C.A.D.) notes as possible psychiatric in nature, or an ambulance crew requested a response after making patient contact. The pilot crew operated M-F 0700-1630. During the pilot, unit 7070 had a Grady EMS paramedic, a GHS Behavior Heath Licensed Professional Counselor (LPC), and a BHL Licensed Clinical Social Worker (LCSW) or LPC from their mobile crisis unit. Additionally, on some shifts a Morehouse MD (PGY3) from psychiatry accompanied the team. The Grady EMS paramedic was responsible to provide the medical evaluation and assessment. Any patient disposition that varies from the normal Grady EMS transport or refusal in accordance with the Fulton County Clinical Care Guidelines (FCCCG's) required the paramedic to contact one of the EMS Medical Directions to provide assessment and proposed disposition. The EMS Medical Director approved the Alternate Destination or disposition and during the pilot, the team was given permission to provide courtesy transportation.

Group decision based on the potential for new opportunities in an area not previously tested. We have attempted a program that targeted frequent users but not specific to the mental health population. There was also another program

through the United Way focusing specifically on homelessness and we did not want a competition or overlapping process.

Innovation Implementation

The GHS Behavioral Health person functioned in an observer to enter patient and clinical information into an Access database created by Glenda Wrenn, MD (Morehouse). This person functioned as the liaison between Grady EMS and BHL Mobile Crisis as a hospital safety link for the first three weeks. BHL provided a LCSW and was instructed to function in their normal capacity as their Mobile Crisis response. This gave our hospital insight into how their team and process is able to intervene during a psychiatric crisis. Glenda Wrenn MD, Morehouse School of Medicine, oversaw the psychiatric clinical aspects of the pilot and was responsible for data collection. Arthur Yancey, MD, MPH and Carl Nee-Kofi Mould-Millman, MD, were the on-call Medical Directors for the Grady EMS paramedic. Michael Colman, Director EMS Operations, provided an in-service to each morning shift during the first week of the pilot. The crews were informed when 7070 arrived on scene, the ambulance crew would introduce and integrate the pilot team into the care and treatment of the patient and allow the pilot team to assume the care of the patient. This specialize team would identify care opportunities to offer the patient other than the ED or assist the primary unit if transport was required. The pilot team could release the ambulance crew and take over the EMS charting, provide alternate disposition, transportation, etc.

Part 1: During the pilot phase, 7070 would not respond as the sole unit.
The unit responded to a variety of calls triaged NAEMD-25 and were able to offer the patient alternate dispositions and alternate destination transports. The team identified patients that did not require transport to an ED and were able to provide the patient with a same-day or next-day appointment, attempt to re-engage patients with their providers, assisted patients with psychiatric medication needs, referral options, and distributed referral cards to contact the 24-hour Georgia Crisis and Access Line. The unit requested to be notified of any active calls where a Grady EMS crew was going to physically and chemically restrain a patient. The on-scene crew was notified of 7070's response and if appropriate, delayed the restraint process until the pilot crew arrived.

The concept was to see if this team could utilize their specialized medical skills and verbal de-escalation techniques to manage the patient in a way other than imposing restraint. This team had the ability to execute a 1013 prior to restraint for better legal and safety protections. The team was able to identify ACT patients and connect them to their current resources. The team was able to contact the BHL Mobile Crisis team who had the ability to directly admit patients to psychiatric facilities that did not require an ED screening. This process was later approved for the Grady EMS / BHL unit to execute. This team also identified and implemented other opportunities to disposition the patient unknown in advance of the pilot start.

An immediate realized advantage of this team was the quick evaluation of a psychiatric patient and execution of a 1013, which significantly reduced ambulance scene times. When a psychiatric patient is disorganized in thinking or behavior and does not meet criteria for an EMS patient refusal (according to the FCCCG's) but the patient is aware enough to verbally refuse the transport, these case become very complex and time-consuming. These cases often involve law enforcement, on-line Medical Direction, and Grady EMS Supervisors responding to the scene. In several cases, the 1013 execution was able to move the restraint responsibility from a law-enforcement led incident to one of a clear medical scene only requiring law-enforcement assistance. One of the benefits realized by this process, was criminal charges were often removed from patients. It may be a better legal defense for law-enforcement to place the person under criminal charges, if appropriate, to begin the process of transporting the psychiatric person to an emergency receiving facility. Unfortunately, this only complicates the patient's life after their medical issue is resolved. As a note, all Grady EMS ambulances carry the Officer Forms (back side of 1013) but many law-enforcement officers are hesitant to execute the form to allow EMS to transport patients against their will when they do not meet the criteria to refuse transport based on the FCCCG's.

Part 2: (GCAL referrals directly from EMS crews)
Inform Grady EMS crews about the Georgia Crisis and Access Line (GCAL). To accomplish this goal, BHL held a one (1) hour in-services for Grady EMS paramedics on: January 15th and 17th, 2013.During the training session, paramedics were provided an overview of the GCAL system and criteria of psychiatric calls where the patient may benefit from this resource.

The paramedic will call 1-800-715-4225 (GCAL) identify the caller as a paramedic referral from Grady EMS and the hand the phone to the patient. On the average, according to GCAL, the Licensed Professional will be able to identify a disposition within ten (10) minutes during the vast majority of calls. If the patient accepts the GCAL option, the paramedic will complete a patient refusal in accordance to FCCCG's. The patient will remain on the phone with GCAL until the process is completed. The paramedics that attended the meetings provided additional in-services to all Grady EMS crews at the shift huddles. Background of GCAL: GCAL processes around 1,000 phone calls per day and over 80% never involve EMS. GCAL can speak to the patient on the phone, provide a referral appointment or dispatch their mobile crisis team to the scene.

The goal is to link patients with this resource that are not engaged in services. When a paramedic calls GCAL for a referral or provides the patient or family member with a GCAL card, there is a new 'procedure' box on the EMS Chart to add the referral to easily data track calls. This will allow Grady EMS and GCAL to evaluate the patient for potential critical links to prevent or decrease future 911 calls.

Part 3: (MOU to transfer first party callers director to G.C.A.L.)
Grady EMS finalized an MOU with GCAL on February 16, 2013 to allow our 911 call center (PSAP) to directly transfer specific psychiatric triaged calls (NAEMD 25-omega) to GCAL. This would have a similar impact as the Nurse Advice and Georgia Poison Center. The ambulance would receive a pre-alert and then be cancelled if GCAL accepts the call. This phase began April 29, 2013. During the first 60 days, Grady's 911 center transferred 57 calls to GCAL.

Part 4: (Expansion of ADP)
Under Grady EMS' Alternate Destination Program, the crisis team transported patients to in-patient psychiatric facilities after bed acceptance was verified through the BHL Mobile Crisis process and approval from the EMS Medical Director. Process began April 29, 2013. Grady EMS added a barrier device to their unit for driver safety during transport to an in-patient facility. All BHL policies were utilized by their clinician during the transport.

Part 5: (Sole responding unit)
As of April 29, 2013, the crisis unit responded to calls as the sole unit based on information in the C.A.D. and location in proximity of the call. This new process was designed to prevent ambulance delays while the crisis team evaluated the mental condition of the patient.

Part 6: (Expansion of hours)
The pilot changed hours based on call demand to 09:00 to 17:00 (from 0700). We will also begin a day/night rotation on June 17, 2013 first night shift begins at 17:00-01:00. This new rotation will be in two week blocks until August when the program will expand to 16-hours per day, five days per week. This will be the result of grant funded positions from BHL and Grady EMS operations approval to increase paramedic staff by two FTE.

Results
During the fourteen week pilot which operated 40-hours per week, the team scheduled 34 appointments in the field, provided 36 referral cards, reconnected 6 ACT patients with their providers, and transported 16 patients to in-patient psychiatric centers through our Alternate Destination Program approved by online medical control. This prevented 92 ambulance transports to the ED. The team continued to improve alternate dispositions as the pilot moved forward and identified and implemented new processes for innovative care of patients with acute mental situations. Additionally, the team was on the scene of 117 calls and assisted ambulances treating psychiatric patients. The LCSW executed 61 form

1013's (involuntary transport requirement to a psychiatric emergency facility) and was on hand to execute 37 additional 1013's had the patient not consented to ambulance treatment and transport.

The success of this program is not only measured in non-transports or dispositions to alternate destinations but a community service provided as the safety net hospital to patients who suffer from mental illness which are complicated and often physically violent encounters. The crisis intervention team has assumed a critical role in deploying expertise from the LCSW to de-escalate agitated and potentially violent patients. This is reflective in the 45% decrease in the use of chemical restraints. The team was easily able to engage law enforcement with the execution of sixty-one 1013's, which additionally decreased complicated scenes involving EMS crews, police, fire, EMS field supervisors, and online Medical Control because Georgia Law prohibits a physician from ordering a 1013 without a face to face evaluation. Due to the complexities in managing many patients suffering from mental illness, according to a recent Atlanta Journal article, patients are often charged with crimes, typically "nuisance crimes" and include anything from disorderly conduct to trespassing. This results in arrest and jail after discharge for the ED for their mental health condition. This is a well know problem and recently reached the attention of the Governor as evident from the recent article that quoted "Superior Court administrator Tom Charron said last year the state legislature, at the request of Gov. Nathan Deal, approved a several million dollar allocation to establish mental health courts throughout Georgia, creating a process for the various circuits to apply for funds through the Criminal Justice Coordinating Council". Our team in many situations has prevented charges being placed on a mental health patient or was able to engage law enforcement to remove charges based on their evaluation of the patient's inability to understand their criminal offense once our team executed the 1013.

- Based on the pilot data and proposed next steps, this program projects to mitigate 1200 patients during the first year in dispositions other than ambulance transport to the ED after full staffing levels are achieved. This program will provide hospitals (65% GHS, 20% AMC, 15% Other) more than 8400 hours of available bed space to improve area ED throughput times and prevent hospital cost loss.

- It was unknown to the team if the crisis project could produce similar results during night hours. A two week night shift (1700-0100) pilot revealed the following: 32 total calls, 15 transports by 7070, 11 refusals, 6 ambulance transports. The following two weeks on days 0900-1700 revealed the following as a comparison: 31 calls, 10 transports by 7070, 9 refusals, 12 ambulance transports. The outcomes based on the two week sample appear to be similar.

Timeline

Discussions began in third quarter 2012 and the pilot began in January 2013. The pilot has evolved based on team feedback and funding. The project continues to expand. We met every two weeks and made adjustments based on the recommendation of operations leadership and physician led medical direction both Emergency Medicine and Psychiatry.

Cost/Benefit Analysis

Projects annual savings of $443,580 (GHS ED $312,780 and Grady EMS $130,800) or twenty (20) percent of current losses during the first year. After full implementation of 80-hours per week.

Advice and Lessons Learned

The paper seems very simple but has many moving parts that require understanding and oversight led by physicians and mental health professions to expand their roles into a pre-hospital EMS environment.

Sustainability

We have a Clinical Social Worker funded through a grant until 2015 and the hospital has funded the two paramedic positions as long as the program sustains the expected results.