



Office of Emergency Management (OEM)

Milwaukee County

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Ending Ambulance Diversion within the Milwaukee County Emergency Medical Services System Executive Summary

History of hospital emergency department ambulance diversion

The Emergency Medical Treatment and Labor Act (EMTALA) was enacted by Congress as part of the 1985 Consolidated Omnibus Reconciliation Act (COBRA) to address the problem of “patient dumping” from emergency departments (ED). Patient dumping was the practice by which hospitals would intentionally not provide care to patients due to issues of insurance or inability to pay. Part of the strategy of patient dumping was to refuse ambulance arrivals at their facility and divert them to other hospitals (usually county or indigent care hospitals) and often with poor patient outcomes. EMTALA stopped this practice by mandating that all emergency departments provide a medical screening exam and stabilize any emergency medical condition regardless of ability to pay – a mandate that is still required to this day. While the origins of ambulance diversion (AD) are thought to be a remnant of patient dumping, it has evolved as a means to address another health care dynamic-hospital capacity.

Over the past two decades, hospital capacity has decreased both in absolute numbers (fewer hospitals and in-patient beds) and in functional capacity (provider shortage). Public policy and payer incentives have shifted to encourage more outpatient care management; coupled with increasing focus on wellness and prevention and improvements in drugs, devices and surgeries that can be provided outside of a hospital, the simple economics of leaner, less expensive outpatient care is a major factor that has decreased absolute hospital capacity.

One consequence of diminished hospital bed capacity is that the emergency department often serves as the hospital capacitor – holding admitted patients awaiting scarce hospital beds while trying to manage those newly arriving whom they cannot legally turn away. Ambulance diversion re-surfaced as a stop-gap tool to push patients to other hospitals. The reality today is that all hospitals are facing these challenging capacity dynamics and diverting ambulances from one hospital to another is no longer a patient-centered solution.

Scientific literature regarding national Ambulance Diversion

There is little evidence based literature to support AD practice despite its use across parts of the United States. Longer ambulance transport times, longer times for certain life-saving interventions and loss of hospital revenue has been clearly reported. A ban on ambulance diversion practice in the State of Massachusetts is the most studied public policy change documented in the literature. Despite early concerns before the ban became effective, there was no increased ED length of stay, no worsening of ED overcrowding, no staff unhappiness and no increased ambulance turnaround time; several hospitals actually experienced improvements in these measures.¹

The Milwaukee County EMS System and the Milwaukee County Office of Emergency Management as a driving force for diversion reduction

Recurring themes within the Milwaukee County EMS System have been identified with AD through the Performance Improvement Process:

- When one hospital goes on diversion, surrounding hospitals soon follow
- Patient satisfaction diminishes when transported to out-of-network or second-choice hospitals
- Ambulances are forced to drive further from patients' communities
- Sicker patients may be denied access to the closest hospital
- Patients decline ambulance services and instead drive themselves to the hospital of their choice

In contrast to decreasing hospital capacity, population growth continues with a larger percentage of aging patients, emergency department utilization continues to increase, ambulance diversion practice has increased, and 911 EMS utilization continues to increase. What started decades ago in the MCEMS system as a seemingly well-intentioned policy to divert ambulances to less crowded emergency departments now represented an opportunity to realign patient-centered EMS delivery within the context of a changing health care landscape.

As a municipal emergency medical services safety net organization, the Milwaukee County Office of Emergency Management is positioned to be entirely patient centered and neutral with respect to health systems. We strive to ensure patients have the right to make informed health choices and acknowledge that patients who are forced away from their medical homes may experience safety, quality and economic risks.

Time Line of the Milwaukee County EMS ambulance diversion reduction policy

Beginning in 2013, the Milwaukee County EMS System stakeholders including our hospital partners developed a three phase approach to ending ambulance diversion:

- Phase I Sudden Cardiac Arrest Survivors
 - Ensured that any patient resuscitated from sudden cardiac arrest was conveyed to the closest appropriate emergency department as these represent among the most unstable patients cared for by EMS and have a high risk of death within the first few minutes of resuscitation; driving these patients to more distant hospitals represented risk to patients and EMS providers.
- Phase II Heart Attack and Stroke Patients
 - Ensured that any patient experiencing a heart attack or stroke are transported to the closest appropriate hospital as the scientific evidence suggested that delaying care has a negative impact on patient outcome and survival.

¹ Academic Emergency Medicine 2006; 13:1220-1227

- Phase III All Patients
 - Ensured that all patients have access to their hospital of choice as a tenet of patient autonomy.

Implementation and Measures of Success of Phase III

Since the very beginning in 2013, the compass navigating this ambulance diversion issue was always focused on the needs and best care of the patients served by the EMS and hospital systems. To that end, while Herculean in scope, April 1st, 2016 was the official implementation date ending ambulance diversion; the EMS system recognizes the incredible efforts undertaken by hospitals in advance of this system start date. Key performance indicators for system monitoring was paramedic ambulance transport volume, average ambulance turnaround time after arrival to the ED, the percent of time hospitals declared an internal disaster and system reported patient safety events as a consequence of no ambulance diversion. Private ambulance transport volumes are not reported to the Milwaukee County EMS System.

Key Performance Indicator	April 1-September 30, 2016	April 1-September 30, 2015
# ALS Level Transports to Hospitals	12, 696	14, 155
Average Ambulance Back in Service Time (in minutes)	22.8 minutes	21.3 minutes
% Hosp Diversion/Internal Disaster Declarations*	13 hours*	4,773 hours
Patient Safety Events Reported as a consequence of no ambulance diversion	0	n/a

(* 3 Internal Disasters: 1 active shooter, 1 civil unrest, 1 designation entry error)

HISTORICAL	2013	2014	2015
Past 3 YRs ALS Level Transport Volume +Change	3.75%	2.79%	3.59%

Conclusion

The ending of ambulance diversion within the Milwaukee County EMS System improved access to regional hospitals and did not negatively impact ambulance turn around or patient safety.