# "EMS" in the New Post Acute Care Environment

## *Collaboration to Reduce Readmissions*

**Christie Lapanne, RN, BSN, CCCC**
*Baylor Scott & White Health*
Ft. Worth, TX

**Matt Zavadsky, MS-HSA, EMT**
*MedStar Mobile Healthcare*
Ft. Worth, TX



## What we're gonna do…

- Learn the reasons for why hospitals and physicians are partnering with their local EMS agencies to reduce potentially preventable readmissions.
- Understand the readmission data and outcomes from patients actually enrolled in partnerships between EMS and other stakeholders to reduce readmissions
- Learn how protocols have been used to positively and effectively improve patient outcomes and reduce readmissions.
- Learn the 4 key steps to implementing an integrated approach with your local EMS agency to replicate the results from currently operating readmission reduction programs.

# And….

- Learn certain words that have a **whole different meaning in Texas…**

## Summer:

- **What it means everywhere else:** A time for vacation, road trips, and fun in the sun.
- **What it means in Texas:** Hell on Earth where the temperatures rarely dip below 100 degrees.

# CMS Bonuses/Penalties…

- Readmissions (up to 3%)
  - 2013-2014
    - MI
    - CHF
    - Pneumonia
  - 2015
    - COPD
    - Knees

## Medicare Fines 2,610 Hospitals In Third Round Of Readmission Penalties

By Jordan Rau
KHN Staff Writer
**Oct 2, 2014**

Medicare is fining a record number of hospitals – 2,610 – for having too many patients return within a month for additional treatments, federal records released Wednesday show. ***Even though the nation's readmission rate is dropping, Medicare's average fines will be higher, with 39 hospitals receiving the largest penalty allowed***, including the nation's oldest hospital, Pennsylvania Hospital in Philadelphia.

***Under the new fines, three-quarters of hospitals that are subject to the Hospital Readmissions Reduction Program are being penalized***. That means that from Oct. 1 through next Sept. 30, they will receive lower payments for every Medicare patient stay — not just for those patients who are readmitted. Over the course of the year, ***the fines will total about $428 million, Medicare estimates***.

http://www.kaiserhealthnews.org/Stories/2014/October/02/Medicare-readmissions-penalties-2015.aspx

Medicare uses the national readmission rate to help decide what appropriate rates for each hospital, so to reduce their fines from previous years or avoid them altogether, hospitals must not only reduce their readmission rates but do so better than the industry did overall.

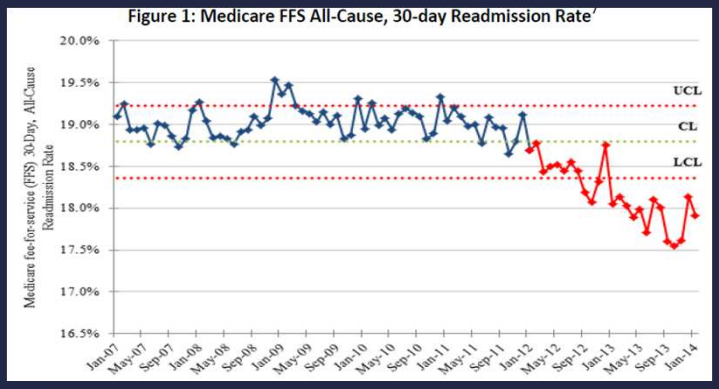
***"You have to run as fast as everyone else to just stay even," Foster said. Only 129 hospitals that were fined last year avoided a fine in this new round, the KHN analysis found.***

***Medicare officials, however, consider the competition good motivation for hospitals to keep on tackling readmissions and not to become complacent with their improvements.***

http://www.kaiserhealthnews.org/Stories/2014/October/02/Medicare-readmissions-penalties-2015.aspx

***The all-cause 30-day hospital readmission rate among Medicare fee-for-service beneficiaries plummeted further to approximately 17.5 percent in 2013***, translating into an estimated 150,000 fewer hospital readmissions between January 2012 and December 2013.

This represents an 8 percent reduction in the Medicare fee-for service all-cause 30-day readmissions rate.




http://innovation.cms.gov/Files/reports/patient-safety-results.pdf

## Truck:

**What it means everywhere else:** A machine used for hauling heavy loads.

**What it means in Texas:** Every other vehicle on the road.

# CMS Bonuses/Penalties…

- There are 4.6 million Medicare beneficiaries with CHF
  - 14% of beneficiaries have HF
    - 43% of Medicare spending on HF
  - One CHF admission cost CMS $13,000
  - 30-day readmission rate for CHF = 24.7%
  - 52% of CHF patients readmitted within 30 days did not see their doc between discharge and readmit (NEJM)
- MedPAC = **$12 billion** CMS expenditures for ***Potentially Preventable Readmissions***

http://healthaffairs.org/healthpolicybriefs/brief_pdfs/healthpolicybrief_102.pdf

## Readmission reduction: A losing battle?

**October 16, 2014**

Readmissions may be "beyond a hospital's control," according to a new study published in the American Journal of Managed Care.

***They gave half the patients an intervention featuring pre-discharge education and planning, post-discharge follow-up, an available hotline and "bridging" techniques such as daily symptom checks***.

***Linden and his coauthor, Susan W. Butterworth, Ph.D., found no statistical difference in readmissions between the two groups after both 30-day and 90-day periods, although mortality was lower in the intervention group than the control group***.

http://www.ajmc.com/publications/issue/2014/2014-vol20-n10/a-comprehensive-hospital-based-intervention-to-reduce-readmissions-for-chronically-ill-patients-a-randomized-controlled-trial/3

The research found only a single instance where a patient received same-day care from a PCP, and in that case the issue was dealt with without requiring emergency care. ***Linden and Butterworth cited several cases in which patients sought an appointment with their PCPs for non-emergency conditions but were sent to the emergency room or unable to make an appointment for weeks***.

To enhance the innovative nature of the intervention, 2 post discharge components were added—motivational interviewing–based health coaching (MI) and symptom monitoring using interactive voice response (IVR). MI is a standardized, evidence-based health coaching approach described as a "collaborative, goal-oriented style of communication with particular attention to the language of change."

***Although the Transitional Care Model sometimes includes home visits, we did not include this in the intervention due to funding constraints and the lack of evidence that it is a compelling component***.

## Take-Away Points from the Research:

- ***Our results suggest the need to continue experimenting with new interventions targeting readmissions, especially for severely ill patients.***
- Our addition of interactive voice response and motivational interviewing–based health coaching to the transitional care model did not improve outcomes.
- Our findings suggest that correcting improper use of the inhaler and increasing adherence to inhaled medications may reduce 90-day mortality for chronic obstructive pulmonary disease patients.
- ***Hospitals, without collaborative relationships with community-based providers, may have limited ability to reduce readmissions, as they cannot ensure timely and continuous care for patients after discharge.***
- A challenging road lies ahead for stand-alone community hospitals seeking to decrease readmissions and avoid financial penalties.

AJMC.com

## How house calls can cut down on hospital readmissions

*The Valley Hospital in New Jersey sends medical teams to patients' homes to coordinate follow-up care*

By Leslie Small

**April 23, 2015**

FierceHealthcare

The healthcare industry abounds with new ideas to reduce unplanned hospital readmissions and emergency department (ED) visits, but a New Jersey hospital has turned to a seemingly old-fashioned medical strategy--the house call.

***The Valley Hospital in Ridgewood, New Jersey, launched its Mobile Integrated Healthcare Program in August 2014 to provide "proactive, post-discharge home check-ups" to patients with cardiopulmonary disease who are at high risk for readmission and either declined or didn't qualify for home care services***, according to a statement from the hospital.

In the program, a team composed of a paramedic, an emergency medical technician and a critical care nurse conducts a physical exam of the patient, offers medication education, reinforces discharge instructions, completes a safety survey of the patient's home and confirms that the patient has made a follow-up appointment with a physician.

http://www.fiercehealthcare.com/story/how-house-calls-can-cut-down-hospital-readmissions/2015-04-23

## Football:

**What it means everywhere else:** A popular American team sport.

**What it means in Texas:** Religion.

| Name | City | State | FY2013 Readmit Penalty | FY2014 Readmit Penalty | FY2015 Readmit Penalty |
|---|---|---|---|---|---|
| Seton Medical Center Austin | Austin | TX | 0.35% | 0.09% | 0.96% |
| St David's South Austin | Austin | TX | 0.63% | 0.54% | 1.42% |
| Valley Hospital | Spokane | WA | 0.18% | 0.11% | 2.00% |
| St Joseph Medical Center | Tacoma | WA | 0.44% | 0.23% | 0.98% |
| Centennial Hills Hospital | Las Vegas | NV | 0.15% | 0.30% | 3.00% |
| Desert Springs Hospital | Las Vegas | NV | 0.74% | 0.55% | 1.08% |
| Baptist Medical Center | San Antonio | TX | 0.00% | 0.00% | 0.52% |
| Methodist Dallas Med Cntr | Dallas | TX | 0.23% | 0.36% | 0.46% |
| LDS Hospital | Salt Lake City | UT | 0.00% | 0.00% | 2.02% |
| Texas Health Resources | Fort Worth | TX | 0.59% | 0.32% | 0.19% |
| John Peter Smith | Fort Worth | TX | 0.08% | 0.03% | 0.03% |
| Plaza Med Cntr (HCA) | Fort Worth | TX | 0.30% | 0.12% | 0.00% |
| Baylor All Saints | Fort Worth | TX | 0.00% | 0.00% | 0.00% |
| North Shore Univ. | Manhasset | NY | 1.00% | 0.98% | 0.55% |
| Wakemed - Raleigh | Raleigh | NC | 0.28% | 0.42% | 0.38% |
| Legacy Emanuel | Portland | OR | 0.10% | 0.19% | 0.19% |
| Legacy Meridian Park | Tualatin | OR | 0.28% | 0.39% | 0.03% |

## Readmission Avoidance

- At-Risk for readmission
  - Referred by cardiac case managers
  - Routine home visits
    - ***In-home education!***
    - Overall assessment, vital signs, weights, 'environment' check, baseline 12L ECG, diet compliance, med compliance
    - ***Feedback to primary care physician (PCP)***
  - Non-emergency access number for episodic care
  - Decompensating?
    - Refer to PCP early
    - In-home diuresis

**Expenditure Savings Analysis** — **CHF Program - All Program Partners**

*Based on Medicare Rates*

| | |
|---|---|
| Analysis Dates: | **October 2013 - February 2015** |
| Number of Patients (1, 4): | **49** |

| | All-Cause 30-day Hospital Utilization | | | | Outcome Analysis | |
|---|---|---|---|---|---|---|
| **Category** | **Base** | **Expected** | **Actual** | **Prevented** | **Rate** | **Reduction** |
| ED Visits | | 49 | 5 | 44 | **10.2%** | **89.8%** |
| ED Charge (2) | $ 904 | $ 44,296 | $ 4,520 | $ 39,776 | | |
| ED Payment (2) | $ 774 | $ 37,926 | $ 3,870 | $ 34,056 | | |
| Admissions | | 49 | 8 | 41 | **16.3%** | **83.7%** |
| Admission Charge (3) | $ 35,293 | $ 1,729,357 | $ 282,344 | $ 1,447,013 | | |
| Admission Payment (3) | $ 8,276 | $ 405,524 | $ 66,208 | $ 339,316 | | |

| | |
|---|---|
| **Total Charge Avoidance** | **$ 1,486,789** |
| **Total Payment Avoidance** | **$ 373,372** |

| **Per Patient Enrolled** | **CHF** |
|---|---|
| ***Charge Avoidance*** | **$30,343** |
| ***Payment Avoidance*** | **$7,620** |

**Notes:**

1. *Patient enrollment criteria **requires a prior 30-day readmission** and the referral source **expects the patient to have a 30-day readmission***
2. *Provided by John Peter Smith Health Network*
3. *2014 CMS Provider Charge Report DRG 189*
4. *Patients with data available for in-hospital utilization*

## NTSP/Silverback/MedStar Protocol for CHF Patients

**This protocol is developed to be used by a MedStar Critical Care Paramedic (CCP) as a standing order for patients enrolled in the NTSP/Silverback Care Management program. This protocol may be used in both requested visits by NTSP/Silverback and 9-1-1 calls from patients that are active as NTSP/Silverback patients.**

CCP will contact NTSP/Silverback RN and review the patient clinical record.

1. Vital Signs, BP, Weight, O2, Pulse.
2. Obtain 12-lead EKG.
3. Obtain iStat (refer to iStat/Chem-8 procedure).
4. If K+ < 2.5 or > 5.5 mEq/L, **transport patient to ED.**
5. If Creatinine is >3mg/dL, consult with NTSP Extensivist or PCP.
6. Refer to Diuresis and Potassium dosing below.
7. Check and report to NTSP/Silverback Extensivist or PCP, PT/INR if patient is on Coumadin. Extensivist will instruct patient with any changes in dosing and follow-up visits.

**Contraindications for Using Protocol**

- Weight gain of less than 2lbs. over baseline.
- Potassium of < 2.5mEq/L or >5.5 mEq/L (**transport if present**)
- Acute clinical changes such as chest pain, dyspnea, or signs of acute decompensation. (**transport if present**)
- Any discomfort on the part of the CCP about the patient's clinical presentation. (**transport if present**)

**Considerations:**

- Patient's baseline vital signs and lab values.
- Educate patient on appropriate dietary and medication compliance.
- Ensure that the sample has not hemolized.
- Encourage ingestion of food or milk to reduce GI upset if increasing potassium dose.
- Have patient record weight daily.
- Evaluate the patient's entire set of lab values in relation to patient presentation.

## NTSP/Silverback/MedStar Protocol for CHF Patients

**Diuresis Dosing Schedule:**

| 2-3 lbs. over | 3-5lbs. over | >5lbs. over |
|---|---|---|
| 1. Increase PO Lasix by 50% of daily dosing.<br>2. CCP Follow-up in 24 hours.<br>3. PCP Notification.<br>4. Extensivist/PCP Follow-up within 48 hours. | 1. Double PO Lasix 2 days, refer to $K^+$ dosing schedule below.<br>2. CCP Follow-up in 24 hours.<br>3. PCP Notification.<br>4. Extensivist/PCP Follow-up within 48 hours. | 1. Administer PO dose by double IV Lasix IVP once, refer to $K^+$ dosing schedule below. (example, a patient getting PO 40 mg Lasix daily, CCP would give a dose of 80mg IV Lasix). CCP will not exceed 100mg Lasix IV.<br>2. CCP to make a follow-up visit within 4 hours.<br>3. Extensivist/PCP Follow-up within 24 hours. |

**Potassium Dosing Schedule:**

| $K+ = 2.5 - 2.9$ | $K^+ = 3.0 - 3.4$ | $K^+ = 3.5 - 5.0$ | $K^+ 5.1 - 5.4$ |
|---|---|---|---|
| Increase by 50% for same length of time patient has increased Lasix dosing. | Increase by 25% for same length of time patient has increased Lasix dosing. | No Change | D/C Supplement |

**Packing:**

**What it means everywhere else:** Putting stuff away in preparation of a move.

**What it means in Texas:** How much firepower you're carrying.

**Patient Self-Assessment of Health Status (1)**
**As of: 2/28/2015**

| | CHF Readmission Prevention | | | High Utilizer Group | | |
|---|---|---|---|---|---|---|
| | Enrollment | Graduation | Change | Enrollment | Graduation | Change |
| **Sample Size** | **53** | **34** | | **126** | **50** | |
| Mobility (2) | 2.30 | 2.56 | 11.3% | 2.35 | 2.62 | 11.5% |
| Self-Care (2) | 2.55 | 2.82 | 10.6% | 2.67 | 2.82 | 5.6% |
| Perform Usual Activities (2) | 2.23 | 2.62 | 17.5% | 2.30 | 2.60 | 13.0% |
| Pain and Discomfort (2) | 2.25 | 2.65 | 17.8% | 1.94 | 2.40 | 23.7% |
| Axiety/Depression (2) | 2.26 | 2.65 | 17.3% | 1.99 | 2.44 | 22.6% |
| **Overall Health Status (3** | **4.57** | **6.71** | **46.8%** | **5.30** | **6.88** | **29.8%** |

**Notes:**

*1. Average scores of pre and post enrollment data from EuroQol EQ-5D-3L Assessment Questionnaire*
*2. Score 1 - 3 with 3 most favorable*
*3. Score 1 - 10 with 10 most favorable*

## Mobile Healthcare Programs

**Patient Experience Summary**
**As of February 2015**

| | Program | | | |
|---|---|---|---|---|
| | HUG | CHF | OBS | Overall Avg |
| Medic Listened? | 5.00 | 4.96 | 4.88 | 4.95 |
| Time to answer your questions? | 4.94 | 4.87 | 4.82 | 4.88 |
| Overall amount of time spent with you? | 4.97 | 4.77 | 4.82 | 4.85 |
| Explain things in a way you could understand? | 4.97 | 4.85 | 4.73 | 4.85 |
| Instructions regarding medication/follow-up care? | 4.97 | 4.77 | 4.76 | 4.83 |
| Thoroughness of the examination? | 4.94 | 4.80 | 4.77 | 4.84 |
| Advice to stay healthy? | 4.94 | 4.83 | 4.66 | 4.81 |
| Quality of the medical care/evaluation? | 4.97 | 4.85 | 4.85 | 4.89 |
| Level of Compassion | 4.97 | 4.91 | 4.88 | 4.92 |
| Overall satisfaction | 4.85 | 4.87 | 4.82 | 4.85 |
| Recommend the service to others? | 97% | 100% | 97.00% | 98% |

## Austin:

**What it means everywhere else:** The capital of Texas.

**What it means in Texas:** A completely different planet.

## Customer Messages…

- Hospitals
  - How can we help improve your readmission rate?
  - How can we help improve your HCAHPS scores?
  - How can we help with your MSPB?
    - Especially in pre and post-acute admissions metric
    - As well as length of stay
- Shared-Risk providers
  - How can we help reduce your spend on admissions?
  - How can we help reduce your spend on Obs admits?
  - How can we help improve your HCAHPS scores?

# Making the Business Case…

**Proposal for Use of MedStar Heart Failure Management Program**

**Description of Program:**
This program is designed to help THRHMFW reduce preventable readmissions for specific DRGs which the hospital is at-risk for penalties under the CMS Hospital Readmissions Prevention Program (HRPP), especially for patients not eligible for traditional home health services. Interventions used by specially trained and credentialed MedStar paramedics include:

- Safe transition to outpatient care coordinated with the THRHMFW case manager and patient's PCP
- Series of home visits to reinforce discharge instructions, education on medication, diet and weight compliance, importance of PCP follow-up care and lifestyle enhancements
- Clinical assessments on every visit including physical assessment, 12L ECG, weight, and IStat Chem 8 POC labs
- 24/7 response of a clinical resource, in the patient's home, as requested or need by the patient
- 9-1-1 co-response by a paramedic knowledgeable in the patient's care plan for care coordination and navigation
- In-home diuresis, breathing treatments, or other interventions as needed and as approved by the patient's PCP
- Care coordination with other resources as needed such as home health, hospice, and social service agencies

**The Business Case:**
*Readmission Penalties* - THRHMFW's current penalty under the HRRP is 0.19% and has been trending downward from the 2013 penalty of 0.59%, bucking the national trend. It is possible that one of the factors contributing to this trend is that during the CMS data collection periods, THRHMFW enrolled 23 of our highest risk patients into the pilot CHF readmission prevention program with MedStar, and only 3 of these patients experienced a 30-day readmission (13% vs. expected 100%). For 2013-14 (DY3) JPS DSRIP program with MedStar, the 30-day CHF readmission rate for the 28 enrolled high-risk patients, the readmit rate is 17.4% compared to the expected 100% readmission rate.

# Learn the Acumen!

**Economic Model Summary/Benefits**

| Domain | Model & Data | Advantage |
|---|---|---|
| Enrollment vs. Contact Fee Structure | $800 enrollment fee, regardless of activity needed to meet the outcome goals. | Shared-risk arrangement with MedStar vs. FFS model. |
| Cost Savings for Unfunded Patients | In 2013, THRHMFW lost $798,728 to 30-day readmits for unfunded patients and consequently received no revenue from these readmissions. | 83% reduction in readmissions for patients enrolled in the MedStar program; the 4 high-risk patients enrolled by THR in 2013 experienced ***no*** 30-day readmissions. |
| Patient Experience | Patient satisfaction scores with the MedStar program average 4.92 out of 5 and 100% of the patients surveyed recommend the program to others. | Improved patient perceptions of THRHMFW, potentially enhancing HCAHPS scores. |
| Investment of referring 50 CHF patients = $40,000 | Focus on high-risk, unfunded patients who would not qualify for traditional home health services. | If 83% of these 50 patients, or 41, patients are prevented from readmitting within thirty days even one time each, that is a savings of **$240,793**. Additional economic benefit from DSRIP payments may be realized if targets are met for readmissions and total admissions in DSRIP patients. |

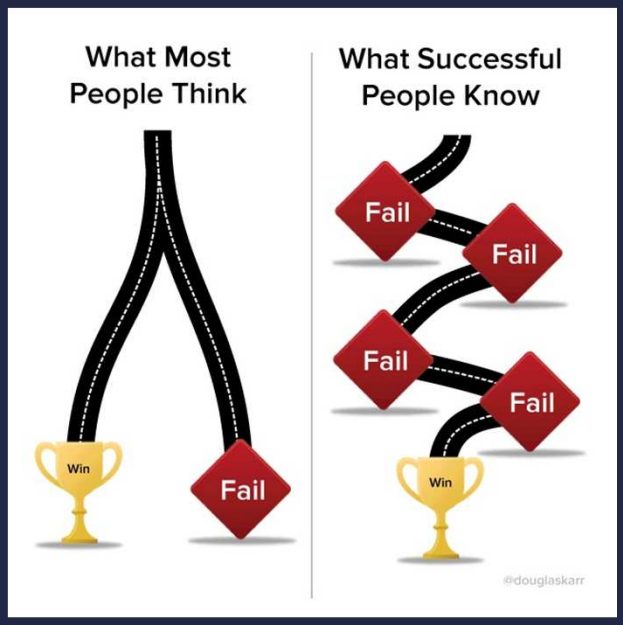
# Keys to Success

- Identify the need
  - Together!
- Determine goals
  - Define success
    - Readmission & ED use, Health Status, Patient Experience
- Educate stakeholders
  - PCPs, cardiology, etc.
  - Case management/discharge planning
- Joint protocols
  - Between PCP and EMS Medical Director
- Assure regulatory compliance
  - Expanded scope vs. expanded ROLE

# Texas:

**What it means everywhere else:** A place full of rodeos, boots, horses, and cowboys.

**What it means in Texas:** Home, and the only place that matters.


What Most People Think
What Successful People Know
Win
Fail
Fail
Fail
Fail
Fail
Win
@douglaskarr


Q&A