

Analysis of current practices in prehospital Congestive heart failure care and protocol development to prevent readmission.

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Problem Statement

- Congestive Heart Failure (CHF) is in the top four diagnoses leading to 30-day readmission.
- Emergency medical services (EMS) are the first in line to respond to CHF exacerbations in the community.
- There is clinical evidence in pilot studies that support the use of EMS in preventing CHF readmission there is a gap in guidelines.
- Despite the emerging evidence and the need to effectively provide care and reduce risks of CHF readmissions, many Midwest health districts do not provide EMS guidance in providing patient screens, education, and care to help reduce unwarranted CHF hospital readmissions.

Purpose

- To analyze evidence-based recommendations for community EMS involvement in the management of congestive heart failure patients to reduce the readmission rate.

Significance/Background

- Nearly one in four heart failure patients are readmitted within 30 days of discharge.
- Study conducted by the California Heart Foundation (CHF) showed readmission rate for CHF was found low among patients visited by paramedics.
- Current research highlights the positive impact on the readmission of CHF by the utilization of paramedics. Despite emerging evidence to reduce unwarranted readmissions limited guidelines exists
- AHA recommends focus on self-care practices and medication regimens.
- In the Prehospital setting EMS can help reinforce self-care practice and medication regimens

Project Description and Design

- A review and synthesis of the literature was conducted and the John Hopkins Evidence- based Practice model was used as framework to:
- Review and analyze the evidence on the current practice of community EMS involvement in treatment of congestive heart failure patients.
 - Develop evidence-based recommendations to reduce CHF readmission in the prehospital setting.
 - Develop a plan to monitor the effectiveness of recommendations.

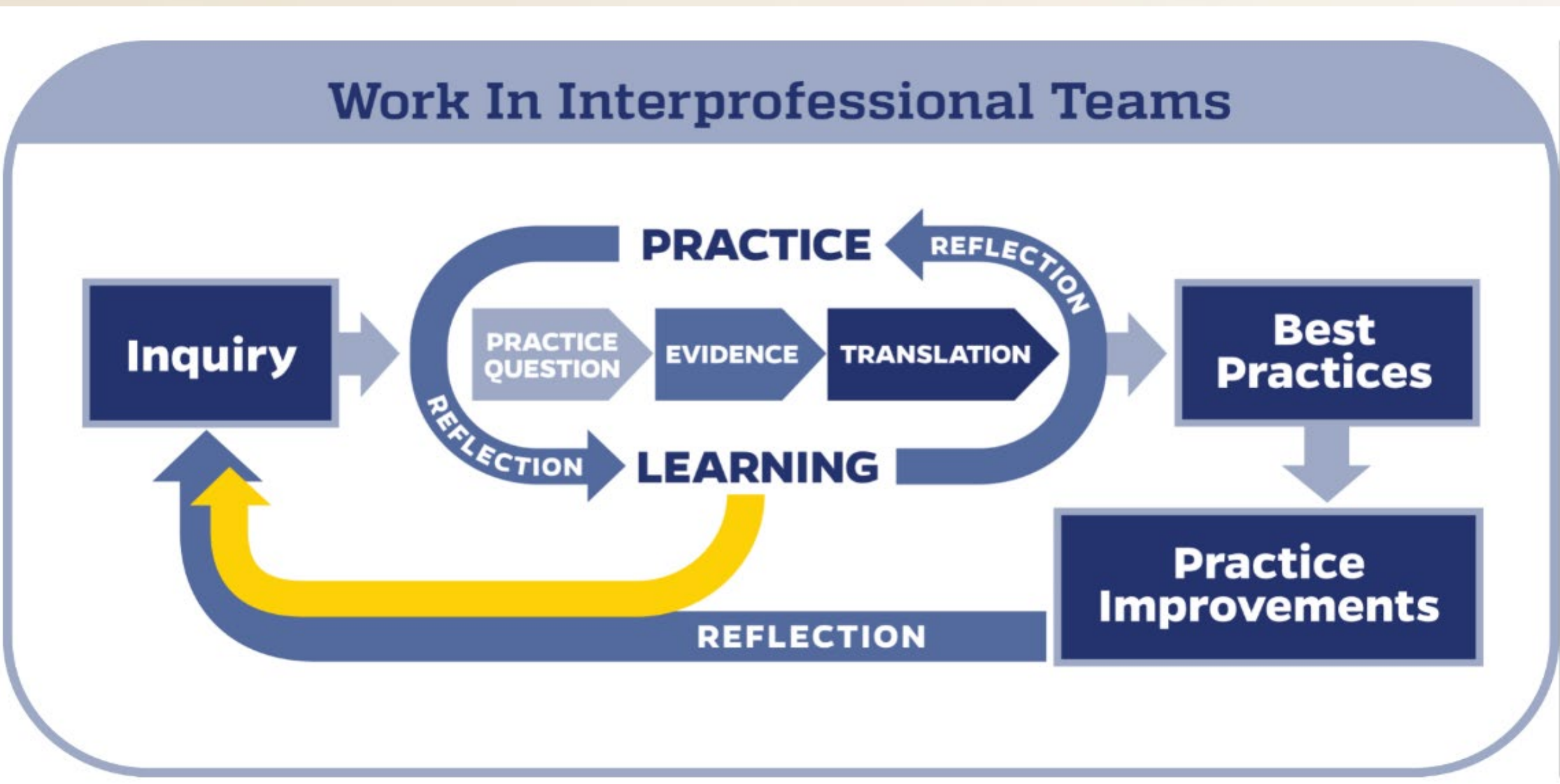


Figure: JHEBPM with Permission

Outcomes and Analysis

- A specific protocol for pre-hospital AHF management was present in 84 regions (80.8%).
- Study in Dallas with a series of a home visit by EMS showed a reduction in readmission rate to 16% compared to 23% nationally.
- From Literature Review (LR) mandatory and regulatory barrier for EMS to transport all encounter was identified with no clearly recommended protocol to manage CHF patients.
- Mobile Integrated Health has grown out of a need to better manage patients with HF in the transition from the hospital to home using optimized care coordination and real-time support when symptoms worsen.

Recommendations

- 1.Allow mobile integrated health plans and community EMS a series of home visits at one to two weeks of discharge and telephone follow-up within 3 days of discharge to assess signs of congestion, drug tolerance, start and up-titrate evidence-based therapy with multi-team coordination which includes primary care provider, cardiologist, community clinic and hospital. (European cardiology society, 2021)
- 2.Home visits should focus on education in the management of chronic medical conditions as well as reinforcement of existing primary and specialty care networks by a comprehensive assessment of local healthcare needs before program planning and implementation. (European Cardiology Society, 2021)
- 3.Development of standard guidelines is necessary with the recommendation of the heart failure patient’s approach in the prehospital setting. (CHF, 2017)
- 4.Appropriate training should be provided to EMS and adequate staffing should be facilitated to minimize the shortage of workforce in responding to other calls (California Heart Foundation, 2017)

Limitations

- The study was not able to find any existing protocol for pre-hospital settings recommendations are partly derived from hospital-based studies and guidelines recommended by the cardiology society.
- Limited due to time constraints and the unavailability of previous literature.

Conclusions

- The utilization of Community EMS can play an integral role in filling up the gap and addressing minor issues that could help to prevent readmission.
- Further study is needed and time to implement a pilot an Evidence-based Practice model can be future areas for scholarly work in this area.

References

Abstract



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