

Improving Knowledge in Early Identification of Sepsis in Texas Nursing Homes (2017-2019)

Sepsis is a significant health care challenge, with over 1 million sepsis cases each year in the U.S., according to the [Centers for Disease Control and Prevention](#). Sepsis is the body's overwhelming and life-threatening response to an infection that can lead to tissue damage, organ failure, and death. Sepsis mortality rates are high because early signs and symptoms of sepsis are very subtle and often dismissed. Through a Civil Monetary Penalty (CMP) award from the Centers for Medicare & Medicaid Services (CMS), TMF Health Quality Institute provided trained nurses and certified nursing assistants in Texas nursing homes to increase knowledge and awareness of early identification of sepsis, including signs and symptoms and urgency to seek treatment. Nursing home staff were educated about the definitions of systemic inflammatory response syndrome, sepsis, severe sepsis and septic shock. Additional focus areas included the early signs of sepsis, how to identify residents at higher risk for developing sepsis and providing treatment as recommended by the Surviving Sepsis Campaign guidelines.

Project Overview

Intervention

TMF used three strategies to maximize the number of nursing home staff educated about identifying sepsis early.

1. "Train-the-trainer" education was provided to 217 nursing homes.
2. On-site education was provided to 102 nursing homes throughout Texas.
3. Texas nursing homes were offered seven webinar opportunities to participate in the sepsis education. There were 125 attendees that participated in webinars.

Each "train-the-trainer" and on-site participant performed a pre-assessment and post-assessment to measure knowledge gain. The percentage of overall improvement was determined by the total of pre-assessment scores divided by the total of post-assessment scores.

Toward the end of the project, TMF mailed participating nursing homes sustainability tools to encourage continued sepsis education and awareness, including a thank you letter with information about sepsis training.

A [link to the TMF Improve Sepsis website](#) was also provided; the website includes the Sepsis Post-Acute Care Training Toolkit comprising training materials, videos, sepsis clinical tools and training

assessments in English and Spanish. Additionally, participants received an educational poster and badge cards.

Outcomes

TMF exceeded the 200 nursing home “train a trainer” goal, with 217 nursing homes receiving early identification and treatment of sepsis education. TMF consultants called each home one month and three months after training. TMF also exceeded the on-site training goal of 100 nursing homes. A total of 102 nursing homes were trained using the on-site training model.

TMF hosted four webinars, but did not reach the goal of virtually training 250 additional nursing homes. TMF hosted an additional three webinars to provide more opportunities for homes to participate. The seven webinars reached 71 new facilities, which resulted in 12 attendees. Participants who provided a valid email address were emailed a copy of the PowerPoint presentation along with the link to the TMF ‘Improve Sepsis’ website. New facilities in Texas that participated in the webinar were mailed a copy of the toolkit.

TMF expected an improvement of 40 percent on pre-assessment to post-assessment and exceeded the pre- and post-assessment knowledge improvement goal with a 41 percent overall improvement.

Success Stories

- A participant in a “train-the-trainer” session stated that she used the knowledge from the sepsis training to identify a resident who was septic. She recognized the signs and symptoms of sepsis and initiated steps to get the resident appropriate treatment. The participant said the resident was admitted to the hospital for several days, but is back at the nursing home and doing well.
- Following a “train-the-trainer” educational session, a director of nursing (DON) said training at his facility went very well. He said his nurses now actively think about sepsis. The DON added that staff are more aware of the early signs and symptoms and are more confident in their ability to recognize sepsis. The DON was also able to use the information to save a friend’s life who called him complaining of severe pain and additional symptoms following a procedure. Because of his increased knowledge of sepsis, he told the friend to go to the hospital, where the friend was indeed diagnosed with severe sepsis and admitted to a hospital. The friend survived and is doing well. He attributes sepsis education to his friend’s survival and to being able to quickly recognize signs and symptoms.
- A DON stated, “The training saved a resident’s life.” Following an educational session, a DON performed sepsis training with the nursing home staff. When a resident was treated for a wound infection, the staff recognized changing symptoms as related to sepsis and quickly had the resident transferred to an acute-care facility for treatment. The resident survived and returned to the nursing home.
- TMF received comments from the on-site and virtual train-the-trainer session evaluations, including:
 1. “This training is very effective. Scenarios were incorporated to apply to life situations.”
 2. “Really helpful. Helps to identify a resident with initial stage of infection.”
 3. “Good lecture. Understood the criteria and signs of sepsis.”

4. "It was a great in-service and educational piece. We have incorporated this into our initial nursing orientation."
5. "I have a better understanding of sepsis. I enjoyed the presentation and learned a lot. This was very helpful for understanding about sepsis."
6. "Very clear and to-the-point during the presentation. Provided me with some education to help advocate and provide better care to my residents."
7. "I've learned new things about sepsis that I believe will help me in the future."
8. "The PowerPoint and handouts highlighted important information."
9. "We thoroughly enjoyed the training and we are training new nurses as they come in! It has helped open our eyes and be more proactive with identifying possible signs and symptoms of sepsis. Thank you so much!!"
10. "I really like the pre- and post-test to be used as teaching tools."
11. "Great education handouts."
12. "Great video. Thank you for additional education information/DVD to show our communities."