



## SITUATION MONITORING

*Attention to detail is one of the most important details...*

– Author Unknown



### SUBSECTIONS

- Situation Monitoring
- Cross-Monitoring
- STEP
- Situation Awareness
- Shared Mental Models
- Teamwork Actions

**TIME:** 45 minutes

# OBJECTIVES

## SAY:

In this module, we'll—

- Introduce the concepts of situation monitoring, cross-monitoring, situation awareness, and shared mental models
- Discuss the components of the STEP process to support situation monitoring
- Identify some strategies to help cultivate shared mental models among teams
- Discuss the importance of when to share information
- Recognize potential barriers to success and identify tools and strategies to overcome them



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**MODULE  
TIME:**

45 minutes

# SCENARIO



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CUSTOMIZABLE CONTENT

## SAY:

Review the following scenario while keeping in mind how well members of this team worked together.

Mary, a nursing home resident, falls while attempting to ambulate independently. She suffers a head laceration and a possible fractured hip. The nursing assistant, charge nurse, and supervisor all respond to Mary's call for help.

Diane, the supervisor, completes her assessment. She directs Ann, the nursing assistant, to retrieve 4x4 gauze from the treatment cart and Jerri, the charge nurse, to maintain c-spine precautions until EMS arrives. Noticing her confused expression, Diane tells Jerri, —Place one hand on each side of Mary's head and keep it in straight alignment with her spine.”



## DISCUSSION:

- What examples of teamwork skills were demonstrated in this scenario?

# TeamSTEPPS FRAMEWORK

## SAY:

Situation monitoring is a key component of the teamwork process and is intimately linked to the other three essential elements of teamwork:

- Because situation monitoring concerns the willingness and ability to continually monitor situations and share this awareness with fellow team members, it is enhanced by team leadership, given that team leaders encourage and role model supportive behaviors.
- Situation monitoring allows mutual support through the ability to anticipate other team members' needs with accurate knowledge of their responsibilities.
- Situation monitoring is also moderated by communication, which allows for the sharing of new and emerging information with other team members to retain a shared mental model.

Continual monitoring of the situation enables the team to anticipate and predict the needs of residents and fellow team members, allowing the team to be more adaptive and flexible. That allows the team to recognize early and respond to deviations in the plan of care, potential problems, or dangerous circumstances. Because of this vigilance, teams are better able to self-correct, compensate for fellow team members, and reallocate functions if necessary. Effective teams possess a shared understanding of the way a procedure or plan should be carried out and established goals met, which allows teams to mitigate and correct errors before they occur or cause harm to the resident.

The most important team outcome of knowledge is a shared mental model. The basic premise underlying the relationship between shared mental models and teamwork is that team effectiveness will improve if team members have a shared understanding of the situation.

We'll talk more about situation monitoring and shared mental models in this module.



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#### SAY:

Here we have a continuum that begins with the individual skill of situation monitoring. The processing of monitored information results in the individual outcome of situation awareness. Sharing your situation awareness with fellow team members results in the team outcome of a shared mental model.

- **Situation monitoring** is the process of actively scanning and assessing elements of the situation to gain information or maintain an accurate understanding of the situation in which the team functions. Situation monitoring is a skill, which implies that it can be trained and developed as discussed earlier.
- **Situation awareness** is the state of knowing the conditions that affect one's work. It is a detailed picture of the situation. Note: Situation awareness (SA) is not a static —thing” or concept. Because the situation and context in which the situation exists are dynamic and ever changing, team members must continually assess relevant components of the situation and update their individual SA.
- **Shared mental models** are the result of each team member maintaining his or her situation awareness and sharing relevant facts with the entire team. Doing so helps ensure that everyone on the team is —on the same page.”
- **A continuous process** is necessary because of the dynamic situations in which teams function. It allows individual team members to maintain their situation awareness and share new and emerging information with other team members to retain a shared mental model.

#### ASK:

When have you used situation monitoring in your work? How did the information that you obtained from the environment affect how you approached or responded to the situation?

# SITUATION MONITORING (INDIVIDUAL SKILL)

## Situation Monitoring

### SAY:

Situation monitoring is the process of actively scanning behaviors and actions to assess elements of the situation or environment.

Situation monitoring is a skill team members can acquire, practice, and improve on. It enables team members to identify potential issues or minor deviations early enough so that they can correct and handle them before they become a problem or pose harm to the resident. Mutual respect and team accountability are cultivated because situation monitoring provides a safety net for both the resident and team members.

### ASK:

What are some of the ways you monitor the situation on your unit or in your department?

### *Examples:*

Assessing the resident's condition, noting malfunctioning equipment, and being aware of workload spikes and stress levels among team members.



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### KEY POINT:

- Situation monitoring is a skill that essentially over time becomes second nature for the seasoned clinical professional.



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#### KEY POINTS:

- Cross-monitoring is a safety net feature for the resident.
- It is the ability of team members to monitor each other's task execution and provide immediate feedback.
- Mutual respect and team accountability are essential for the strategy of cross monitoring to be successful among team members.
- This strategy is meant to help the team meet its collective goal: safe and effective resident care.
- Mutual performance monitoring is an important team competency as described by McIntyre and Salas (1995).

#### SAY:

Cross-monitoring is used by fellow team members to help maintain situation awareness and prevent errors. Commonly referred to as —“watching each other’s back,” it is the action of monitoring the behavior of other team members by providing feedback and keeping track of fellow team members’ behaviors to ensure that procedures are being followed appropriately. It allows team members to self-correct their actions if necessary. Cross-monitoring is not a way to —spyon other team members, rather it is a way to provide a safety net or error-prevention mechanism for the team, ensuring that mistakes or oversights are caught early. When all members of the team trust the intentions of their fellow team members, a strong sense of team orientation and a high degree of psychological safety result.

#### DO:

Have participants form pairs, and have each pair share an example of a situation in which cross-monitoring was successful and one in which cross-monitoring should have been used but was not.

Have several pairs volunteer to share their examples with the larger group.

## CROSS-MONITORING EXAMPLE

### SAY:

In the cartoon, how might this team member's cross-monitoring be beneficial to the resident and the team as a whole?

It would alert the team member to the need to—

- Protect the resident from infection
- Prevent the spread of *C difficile*, a common yet serious healthcare-acquired infection
- Check on precaution supplies and their availability
- Place signage on the resident's door alerting staff, residents, and visitors of the need for precautions

Staff members need to constantly be aware of the situation, anticipate next steps, —~~at~~atch each other's back," and take appropriate self-corrective action to prevent errors from reaching the resident.

In the next video, watch how the team monitor and assist each other to ensure that the resident receives timely and appropriate emergent care.

 **DO:** Play the video by clicking the director icon on the slide.

 **DISCUSSION:** What actions by the team were a result of cross-monitoring?

- The nurse manager noticed that the physical therapy aide couldn't find the appropriate oxygen mask.
- The nurse manager reminds the physical therapy aide of the correct oxygen dose to use with the rebreather mask.
- Jay, the physical therapist, assists the physical therapy aide with her assignment by calling the nurse manager. He also arranges transportation for the other resident back to her unit.



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### KEY POINTS:

- Vigilance leads to self-correction, which leads to error reduction.
- Self-correction is the process by which team members reflect on previous performance to improve future performance.

 **VIDEO TIME:**  
0:27 seconds

### MATERIALS:

- Cross Monitoring\_Subacute Video

## STEP



Slide



CUSTOMIZABLE  
CONTENT

### SAY:

How do you acquire a trained eye as you “monitor the situation” on your unit? What are relevant components of the situation that provide clues about impending complications or contingencies? The STEP process is a mnemonic tool that can help you monitor the situation and the overall environment.

The STEP process involves ongoing monitoring of the—

- **S**tatus of the resident
- **T**eam members
- **E**nvironment
- **P**rogress toward the goal

### *Examples:*

- The social worker notes that a resident in the end stages of Alzheimer’s disease shows facial grimacing and restlessness. She thinks this could indicate an increased level of pain that cannot be communicated (**STATUS**).
- The resident’s nurse is busy helping another resident (**TEAM MEMBERS**).
- It is a shift change, and everyone is busy, so the social worker checks the medication record and notes that the resident is overdue for his morphine (**ENVIRONMENT**).
- The social worker notifies the oncoming nurse of her concern (**PROGRESS**).

# STATUS OF THE RESIDENT

## SAY:

In a health care setting, the most obvious element of the situation requiring constant monitoring is your resident's status. Even minor changes in the resident's vital signs may require dramatic changes in the team's actions and the urgency of its response. When assessing resident status, consider the following:

- Resident's Medical History/Any Current and Active Diagnoses
- Vital Signs
- Medications
- Physical Exam/ADL status
- Plan of Care
- Psychosocial Condition (e.g., resident's stress level, behaviors)

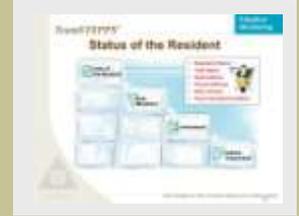


**DO:** Play the video by clicking the director icon on the slide.



**DISCUSSION:** Why was Olivia concerned about Mr. Larkin when he said he was o.k. and even made a joke about losing his touch?

- Resident was sweaty and short of breath.
- Resident was not keeping up the same pace as in previous therapy sessions.
- Resident denied pain as a reason for frequent pauses in his exercises.



## Slide



## VIDEO TIME:

0:51 seconds



## MATERIALS:

- STEP\_Subacute Video

## TEAM MEMBERS



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### SAY:

You should also be aware of team members' status, to include the following:

- Fatigue Level
- Workload
- Task Performance
- Skill Level
- Stress Level

Health care providers are just as prone to human error as the general population. Teams that recognize and maintain an awareness of their individual team members' functioning are more likely to lend support or assistance. Observing the actions of fellow team members is a safety mechanism that can be used to mitigate error before the resident is harmed.

# I'M SAFE CHECKLIST

## SAY:

Awareness of your own condition to ensure that you are fit and ready to fulfill your duties is essential to delivering safe, quality care. Team members should assess and report if there is a personal situation affecting their ability to perform.

—“I'M SAFE” is a simple checklist that should be used daily (or more frequently) to determine both your co-workers' and your own ability to perform safely. I'M SAFE stands for—

- **Illness.** Am I feeling so bad that I cannot perform my duties?
- **Medication.** Is the medication I am taking affecting my ability to maintain situation awareness and perform my duties?
- **Stress.** Is there something (such as a life event or situation at work) that is detracting from my ability to focus and perform my duties?
- **Alcohol/Drugs.** Is my use of alcohol or illicit drugs affecting me so that I cannot focus on the performance of my duties?
- **Fatigue.** The effects of fatigue should not be ignored. Team members should alert the team regarding their state of fatigue (e.g., watch me a little closer today, I only had 3 hours of sleep last night).
- **Eating and Elimination.** Has it been 6 hours since I have eaten or used the restroom? Many times we are so focused on ensuring our resident's basic needs that we forget to take care of our own. Not taking care of our elimination needs affects our ability to concentrate and stresses us physiologically.

Teams should be encouraged to set goals concerning the items on this checklist (e.g., everyone will be given the opportunity to take a break and have lunch today).

## ASK:

- In your current situation would you feel able to express that you're not safe?
- What are the factors that inhibit you from doing so and/or that contribute to your inability to do so?
- If you feel inhibited, what can you and your team do to change the culture?

For this to be successful, there must be a culture in place in which staff feel safe to be honest without fear of reprisal, retribution, or disdain.



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## ENVIRONMENT



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#### SAY:

The environment directly affects the quality of care delivered. Is the needed equipment present? Is there enough staff to tend to all the residents? The environment can change quickly and dramatically, and teams must be able to adapt to the dynamic nature of the situation. When assessing the environment, consider the following:

- Facility Information
- Administrative Information
- Human Resources
- Acuity of Residents and Team Members' Assignments
- Equipment Status

## PROGRESS TOWARD GOAL

### SAY:

By monitoring progress toward the team's established and agreed-on goals, team members will be able to alert the team when strategies or the plan of care may need to be reconsidered or revised or when additional resources are needed. When assessing progress, team members need to consider the following:

- Status of the team's residents
- Goal of the team
- Tasks/actions completed or that need to be done
- Continued appropriateness of the plan

Goals were established and agreed on at the team meeting. What has changed, and how does our goal have to be modified?



### Slide



### KEY POINT:

- In reviewing progress toward the goal, have you noticed a change that would provide a reason to modify the goal?



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### TIME:

5–10 minutes



### MATERIALS:

- Flipchart or Whiteboard (Optional)
- Markers (Optional)

### SAY:

Break into groups and recollect real-life examples of situation monitoring in which you needed to—

- Be aware of what was going on
- Prioritize and focus on different elements of the situation
- Share that information with others

### DO:

Once each group has completed the exercise, ask the groups to share their examples with the larger group.

# SITUATION AWARENESS IS

## SAY:

Situation awareness is the state of knowing the conditions that affect one's work. It is the extent to which team members are aware of the following:

- Status of a particular event
- Status of the team's residents
- Operational issues affecting the team
- Need to maintain mindfulness

The health care environment is dynamic, requiring team members to continually reassess situations to update their situation awareness. What results is a sense of —knowing what's going on around them.”

A loss of situation awareness results in the following:

- Ambiguity
- Confusion
- Decreased communication



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 **KEY POINT:**

- Create a culture in which there is an expectation that information will be shared among team members and that information will be actively sought from others.

**SAY:**

Below are some of the numerous barriers to maintaining situation awareness. They are the result of team members' failure to—

- Share information with the team
- Request information from others
- Direct information to specific team members
- Include resident or family in communication
- Utilize resources fully
- Maintain documentation that is adequate, complete, and timely

## A SHARED MENTAL MODEL IS

### SAY:

A mental model is a mental picture or sketch of the relevant facts and relationships defining an event, situation, or problem. When all members of a team share the same mental model, this is referred to as a —shared mental model.” Sharing your situation awareness with fellow team members results in a shared mental model, or in —everyone being on the same page.”

Similar to the way situation awareness is the result of an individual team member’s situation monitoring, a shared mental model is the result of each team member maintaining his or her situation awareness and sharing relevant facts with the entire team. In isolation, it is possible for an individual team member to misinterpret cues or to place too much emphasis on one piece of information. Shared mental models are knowledge structures of the relevant facts and relationships about tasks or situations that the team is engaged in, and about the way the team members interact. Shared mental models enable the team to anticipate and predict each other’s needs; identify changes in the team, task, or teammates; and adjust the course of action or strategies as needed.

Shared mental models are sustained by the following:

- The process of planning
- Team decisionmaking
- Vocalizing

Research supports the notion that the ability to hold shared mental models is an important team competency.

Shared mental models provide team members with a common understanding of who is responsible for what task and what the information requirements are. In turn, this allows them to anticipate one another’s needs so that they can work (i.e., provide resident care) in synchronicity (Stout, et al., 1999).

### DO:

Ask participants to share instances in which they have been on the —same page” with others on their team.



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### KEY POINTS:

- Situation monitoring is a trained eye.
- Cross-monitoring is —watching each other’s back.”
- Situation awareness is —knowing what is going on around you.”
- With a shared mental model all team members are —on the same page.”

## SHARED MENTAL MODEL?



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### SAY:

On our continuum of situation monitoring, situation awareness, and shared mental model, where are these two groups? How can lack of a shared mental model affect safety?



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 You have the option of using the following exercise if you want.

The goal of this exercise is to explore and discuss the role and value of **all** team members in achieving a shared mental model.

This exercise simulates an interdisciplinary care plan meeting and demonstrates how the information that each team member brings is important to developing a thorough and thoughtful care plan. In the exercise, some of the team members are not at the meeting, so their contributions are not heard by the group. The group sees how the care plan developed differs when only some members are present and contribute in contrast to when all members of the team are heard.

The exercise may be presented to a small group with individuals playing roles of care plan team members or as a large group discussion.

## PREPARE

- 1) Review the exercise sheets for this activity:
  - 1) Script Exercise Sheet
  - 2) Role Information Exercise Sheets
  - 3) Care Plan Questions To Consider Exercise Sheet
- 2) Gather 8 envelopes.
- 3) Designate the envelopes for the following roles:
  - 1) Nurse
  - 2) Activity Assistant
  - 3) Social Worker
  - 4) Occupational Therapist
  - 5) Mrs. Valdez
  - 6) Rose, Mrs. Valdez’s Daughter
  - 7) Nursing Assistant
  - 8) Housekeeper
- 4) Using the information provided on the exercise sheet labeled:—**RDE INFORMATION,**” place the appropriate information for each person in the designated envelope. This is the information each person should know about Mrs. Valdez.
- 5) Make copies of the exercise sheet —**CARE PLAN QUESTIONS TO CONSIDER**” for the entire audience.



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**TIME:**

20-30 minutes



**MATERIALS:**

- Script Exercise Sheet
- Role Information Exercise Sheets
- Care plan Questions to Consider Exercise Sheet



**KEY POINT:**

- Sharing information is critical to the development of a shared mental model.

**DO (SMALL GROUP EXERCISE):**

- Ask for eight volunteers. Randomly assign each volunteer an envelope with a role designation (e.g., social worker, daughter, nurse).
- Read the script provided on the exercise sheet labeled:—SCRIPT” out loud to the group.
- Display the Practical Exercise slide on Mrs. Valdez. The information displayed is —common knowledge” about Mrs. Valdez. Review the information with the group.
- Provide copies of —GARE PLAN QUESTIONS TO CONSIDER” to the care plan team (and the audience).
- Have all eight volunteers open their envelopes.
- *Participants **not** attending the care plan meeting can have no input. They must be quiet!* The team attending the care plan meeting can now begin to create an initial plan of care. They meet for 10 minutes, considering the supplied questions and begin to identify what should be included in Mrs. Valdez’s care plan.
- The team reports its care plan about Mrs. Valdez to the group.
- Discuss the role of all team members and the relationship between communicating information, including team members, and developing a shared mental model. To not include Mrs. Valdez, her daughter, the housekeeper, and the nursing assistant in the process is to create a plan of care missing significant information.
- As a group, review the questions and care plan again with all of the available information. Share new insights and perspective related to —everyone being on the same page.”
- What lessons were learned?
- What can be incorporated in current care planning processes within your nursing home?

**OR**

**Do (WHOLE GROUP EXERCISE) on the next page.**



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**TIME:**

20-30 minutes



**MATERIALS:**

- Role Information Exercise Sheet
- Care Plan Questions to Consider Exercise Sheet



**KEY POINT:**

- Sharing information is critical to the development of a shared mental model.

**DO (WHOLE GROUP EXERCISE):**

- Display the Practical Exercise slide on Mrs. Valdez. The information displayed is —common knowledge” about Mrs. Valdez. Review the information with the group.
- Ask the group to formulate an initial care plan about Mrs. Valdez. Provide copies of —**CARE PLAN QUESTIONS TO CONSIDER.**”
- After they discuss their conclusions, provide the class with **information from those roles designated as being in attendance** (nurse, social worker, activity assistant, occupational therapist).
- Discuss how the additional information alters the group’s initial plan of care.
- Provide **information from those who were not in attendance** (Mrs. Valdez, Rose, nursing assistant, housekeeper). Discuss how this additional information changes the group’s plan of care.
- Focus discussion on the relationship between the communication of information and the development of a shared mental model.

\* Mrs. Valdez exercise was adapted with permission from Heathcentric Advisors.

<http://www.healthcentricadvisors.org/individualized-care.html>

## WHAT DO YOU SEE?



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### SAY:

Each team member has a unique perspective and information that benefits the team as a whole when shared. Different people may view the same situation differently, but without sharing and communicating, each team member may have a different understanding.

Ask the audience what they see in each picture. After responses are given, discuss how totally different figures are seen if the pictures are viewed from the left versus the right.

### DISCUSSION:

- When looking at these images, what do you see?
- Do you see different images if you look right to left versus left to right?
- How did sharing perspectives increase your ability to see the whole picture?

### **Answers:**

- Left image: Indian and Eskimo
- Center image: Duck and rabbit
- Right image: Elderly lady and young lady

## WHEN TO SHARE?

### SAY:

There are both ad hoc and structured opportunities to share vital information with team members. Some examples of when information can be shared include team events such as briefs, huddles, and debriefs. It is important to establish the expectation that these team events will occur and that all team members are empowered to speak up. Teams should communicate often and at the right time to ensure that fellow team members have the information they need to be able to contribute.



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**SAY:**

This module discussed barriers that hinder team members from accurately monitoring situations that affect the care of the resident and the effectiveness of the team.

The tools and strategies introduced in this module to overcome these barriers include the following:

- **STEP**—a mnemonic template to help cue active monitoring of all the vital components of a situation
- **I'M SAFE checklist**—a list to prompt a self-status check
- **Cross-monitoring**—“watching each other’s back”
- Shared mental models and their impact on resident safety are the most important outcomes of situation awareness. Other benefits include the following:
  - **Adaptability**—having members who can back up and fill in for one another and easily adjust the plan of care as new information becomes available
  - **Team orientation**—having members who understand each other’s roles and how they fit together
  - **Mutual trust**—having members who trust other team members’ intentions
- By conducting situation monitoring you are more likely to have a positive experience:
  - You’ll enjoy working as a team..
  - You’ll trust your teammates..
  - You’ll be better able to adapt to changes and quickly recover..
  - And finally, your team will be safer and more likely to identify and correct errors..

## TEAMWORK ACTIONS

### SAY:

Teamwork actions can include the following:

- Conduct team exercises to increase situation monitoring skills.
- Share information.
- Include resident and/or family/significant other in communication.
- Use cross-monitoring.
- Apply the STEP process when monitoring the situation.
- Foster communication to ensure a shared mental model among all team members.
- Share information during team events (e.g., briefs, huddles, and debriefs) and transitions in care.

### ASK:

What actions will you take to improve your and your team's situation monitoring skills?



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## REFERENCES

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