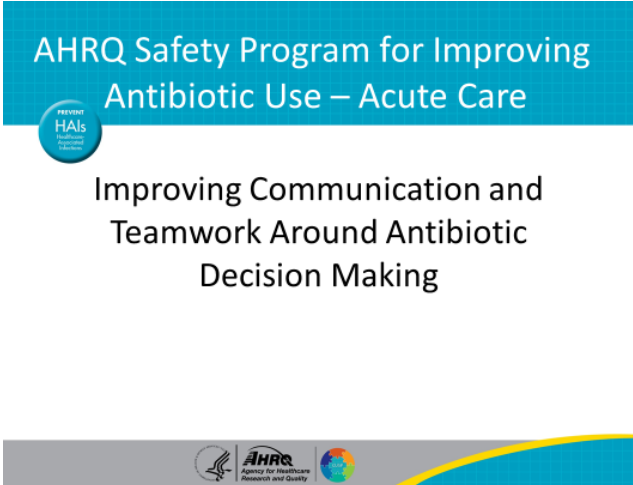
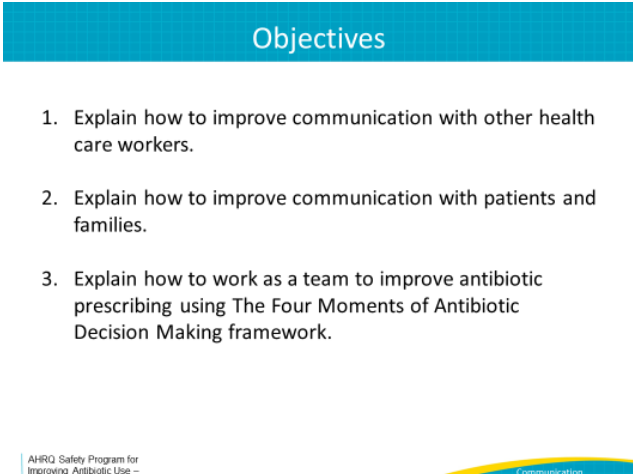


AHRQ Safety Program for Improving Antibiotic Use



Improving Communication and Teamwork Around Antibiotic Decision Making Acute Care

Slide Title and Commentary	Slide Number and Slide
<p>Improving Communication and Teamwork Around Antibiotic Prescribing Acute Care</p> <p>SAY:</p> <p>This presentation is titled “Improving Communication and Teamwork around Antibiotic Decision Making.”</p>	<p>Slide 1</p> 
<p>Objectives</p> <p>SAY:</p> <p>By the end of this presentation, participants will be able to:</p> <ol style="list-style-type: none"> 1. Explain how to improve communication with other health care workers. 2. Explain how to improve communication with patients and families. 3. Explain how to work as a team to improve antibiotic prescribing using The Four Moments of Antibiotic Decision Making framework. 	<p>Slide 2</p> 



Slide Title and Commentary	Slide Number and Slide
<p>Improve Communication and Teamwork</p> <p>SAY: Communication and teamwork are two key elements of patient safety culture.</p> <p>Effective communication is a key skill to ensure best use of antibiotics. This includes communication between the stewardship team and frontline providers, between members of the patient care team, and with patients and families. It is important to understand and implement techniques to improve communication regarding antibiotic decision making.</p> <p>It is critical that clinical team members develop skills and strategies to ensure they can work together effectively with the goal of improving antibiotic use and preventing harm associated with antibiotics.</p>	<p>Slide 3</p> <p>Improve Communication and Teamwork</p> <ul style="list-style-type: none"> • Effective communication strategies <ul style="list-style-type: none"> – Understand and implement communication techniques among the stewardship and frontline team members, patients, and families • Improved teamwork <ul style="list-style-type: none"> – Develop strategies to enhance teamwork so that teams have ownership of approaches and actions to improve antibiotic use and prevent harm associated with antibiotics <p>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</p> <p>Communication and Teamwork 3</p>
<p>SAY:</p> <p>George Bernard Shaw stated: “The single biggest problem in communication is the illusion that it has taken place.”</p> <p>Let’s think about strategies to improve this problem.</p>	<p>Slide 4</p> <p>“The single biggest problem in communication is the illusion that it has taken place.”</p> <p>- George Bernard Shaw</p> <p>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</p> <p>Communication and Teamwork 4</p>

Slide Title and Commentary

Process of Communication

SAY:

Communication in general can be viewed in this simple model, which may remind you of the telephone game you may have played as a child or with your children, in which an initial message morphs into something else after being passed through several people.

When sending a message, you encode it in words. This message then passes through “the message medium” or the setting for the message. In health care, this often involves noisy, distracting environments and may contain assumptions. The receiver is tasked with decoding the message (whatever the sender is attempting to pass along). If the sender and receiver know each other well, it is less likely that there will be a translation error. However, in work atmospheres problems can arise.

As an example, the stewardship team recommends stopping piperacillin/tazobactam and starting ceftriaxone, and the team ended up adding ceftriaxone to piperacillin/tazobactam. Perhaps the stewardship team used unclear language such as “We recommend that you use ceftriaxone for the *E. coli* bacteremia.” The stewardship team assumed that it was implicit that the team would stop piperacillin/tazobactam when starting ceftriaxone, but this was not explicitly stated, leading to miscommunication and potential patient harm.

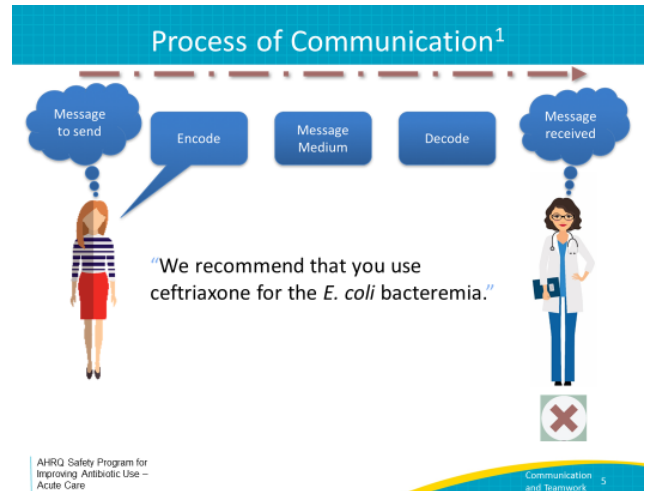
Process of Communication Continued

SAY:

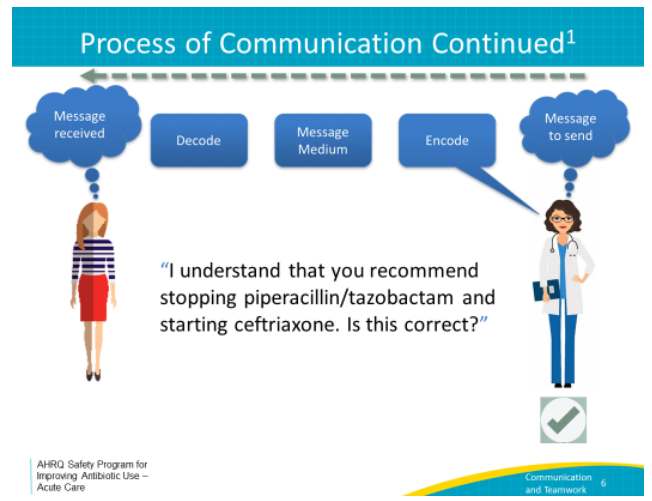
For effective communication, the receiver should use active listening techniques during which he or she repeats back the message to let the sender know that it was received and decoded correctly. In this case, the speaker who is the stewardship team member could have both been more specific about the recommendation (stop piperacillin/tazobactam and start ceftriaxone) and could have asked the receiver to repeat the recommendation. Nonverbal signs like eye contact and nodding are also helpful during in-person interactions.

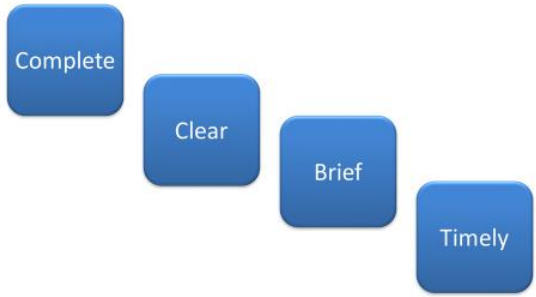
Slide Number and Slide

Slide 5



Slide 6



Slide Title and Commentary	Slide Number and Slide
<p>Four Key Components of Effective Communication</p> <p>SAY: There are four components of effective communication:</p> <ul style="list-style-type: none"> • Effective communication is complete. All relevant communication is relayed, but unnecessary details that may cause confusion are avoided. The relevant team members have easy access to the needed information. For example, reasons that antibiotics were started for a patient the day before are known and understood, and can be communicated by the clinicians caring for the patient today. • Effective communication is clear. When speaking with team members, effective communication includes the use of standard terminology. When speaking with patients and families, effective communicators avoid technical terms and jargon and instead use plain language and layperson’s terms that are more easily understood. • Effective communication is brief and concise. Use punctuation in your head when you communicate information rather than long statements that go on and on. Ask the recipient of the information to repeat the message to verify that the message has been received. Avoid too many if/then comments in a row. • Effective communication is timely. It avoids compromising a patient’s situation by promptly relaying information. It notes times of observations and interventions in the medical record. 	<p>Slide 7</p> <p>Four Key Components of Effective Communication²</p>  <p>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</p> <p>Communication and Teamwork 7</p>

Slide Title and Commentary

Use Assertive (Not Aggressive) Statements

SAY:

In communication, there is a difference between being assertive and being aggressive. Assertiveness is standing up for your own or a patient's interests in a calm and positive manner. It is an approach that leads to effective communication. Aggressiveness (whether passive or active) is attacking or ignoring others' opinions in favor of your own.

Being appropriately assertive means seeing yourself as having worth; valuing others equally and respecting their right to an opinion; and engaging in communication respectfully while also respecting your own opinions. When speaking with others, you should appear relaxed but also stand up straight and make eye contact. It is important to be assertive not only on rounds or in meetings but also when speaking with executives. This lets them know that you deserve to be given time and respect.

Being assertive does NOT mean being aggressive, hostile, confrontational, demeaning, or condescending. Ineffective communication hinders teams and units. You should focus on productive communication within your team and with individuals outside of your team. It can also be instructive to detect and observe ineffective communication and its effects in your practice and on your unit.

Slide Number and Slide

Slide 8

Use Assertive (Not Aggressive) Statements

Assertive	Aggressive
<ul style="list-style-type: none">• Standing up for your own or a patient's interests• Remaining calm and positive• Not being actively or passively aggressive• Not accepting what is not right	<ul style="list-style-type: none">• Attacking (active) other's opinions in favor of your own• Ignoring (passive) other's opinions in favor of your own
Approach for effective communication	Approach that impairs communication

AHRQ Safety Program for Improving Antibiotic Use – Acute Care

Communication and Teamwork 8

Elements of Appropriate Assertion

SAY:

When advocating for the patient, team members should provide evidence to support their concerns. It's best to focus on the common goal of providing the safest care to the patient rather than attacking the perspective of a teammate or sounding judgmental; both of these actions are likely to lead to lack of consensus. Think about the wording of your statements in advance and gather your thoughts before speaking.

For example, suppose you are taking care of an 80-year-old man admitted with pneumonia from a nursing home. He was initially started on vancomycin and piperacillin/tazobactam. Since his admission, his oxygen requirements and his mental status have returned to normal. Sputum Gram stain and cultures as well as blood cultures are negative, but his creatinine has increased from 1.2 to 1.5 mg/dL. You propose stopping vancomycin and piperacillin/tazobactam and starting an oral cephalosporin, but a colleague is concerned about stopping MRSA and pseudomonal coverage because the patient came from a nursing home and was quite ill when he was admitted.

Think about ways that you could resolve these different views regarding antibiotic therapy.

You could say, "That's ridiculous—why do you want to keep giving the patient antibiotics that are hurting his kidneys just because you are nervous?" However, that sounds like a judgmental, personal attack on the other physician and is unlikely to bring about resolution.

Alternatively, you could say, "I appreciate your insight as the person who admitted the patient. It's great that the patient is now doing so much better. I am concerned that his creatinine is increasing on the current regimen. Since his cultures don't show MRSA or *Pseudomonas*, I think it would be reasonable to stop the vancomycin today, and perhaps then narrow the piperacillin/tazobactam tomorrow if he still looks good. I think the risk of vancomycin toxicity is greater than the risk that he has an MRSA infection. Would that approach work for you?"

Slide 9


Elements of Appropriate Assertion

- Provide evidence or data to support your concerns.
- Focus on the common goals of quality care and the welfare of the patient.
- Avoid the issue of who's right and who's wrong.
- Actively avoid being perceived as judgmental.
- Be hard on the problem, not the people.
- Gather your thoughts before speaking.



AHRQ Safety Program for
Improving Antibiotic Use –
Acute Care

Communication
and Teamwork 9

Slide Title and Commentary	Slide Number and Slide
<p>In this latter example, you have acknowledged the legitimate concerns of a colleague and offered a reasonable compromise and provided a rationale with the patient’s best interest in mind. If the colleague agrees, it is best to restate the plan out loud—“Let’s stop the vancomycin today. If he looks good on rounds tomorrow, we will switch the piperacillin/tazobactam to cefpodoxime for three more days”—to ensure consensus and make the plan clear.</p>	
<p>Advocacy and Assertion</p> <p>SAY:</p> <p>To review, an assertive statement should:</p> <ul style="list-style-type: none"> • Open the discussion • State the concern • State the problem—real or perceived • Offer a solution • Obtain an agreement 	<p>Slide 10</p> <div style="background-color: #0099cc; color: white; padding: 5px; text-align: center;"> <p>Advocacy and Assertion</p> </div> <ul style="list-style-type: none"> • An assertive statement should:³ <ul style="list-style-type: none"> – Open the discussion – State the concern – State the problem (real or perceived) – Offer a solution – Obtain an agreement  <p style="font-size: small;">AHRQ Safety Program for Improving Antibiotic Use – Acute Care</p> <p style="text-align: right; font-size: x-small;">Communication and Teamwork 10</p>

ALEEN

SAY:

Communication with patients and families is also very important. One framework that can be particularly helpful when clinicians differ from patients and families about antibiotic use is ALEEN. This stands for:

Anticipate – Gather all the information about what is happening, including patient and family expectations

Listen – “Can you help me understand why you feel this way or are upset?”

Empathize – “That is understandable.” “You have every right to be upset” or “You feel ill and want to feel better”

Explain – “Would it be all right if I explained why things are happening as they are?” or “why I’m making this recommendation?”

Negotiate – “Let’s try to agree on our path forward” or “Let’s come up with a plan”

For example, you admit a 75-year-old man with metastatic lung cancer with worsening infiltrates on chest x ray and an increasing oxygen requirements. Although the patient’s symptoms and imaging are most suggestive of worsening lung cancer, you start the patient on vancomycin and cefepime in case there is pneumonia. Sputum Gram stain is negative and cultures grow normal respiratory flora. Over the next few days the patient’s pulmonary status worsens and you meet with the patient and family to discuss goals of care. When you mention that you are planning to stop antibiotics, the patient’s son becomes upset and pulls out a printed copy of a Web page about ceftazidime/avibactam and requests that you start the patient on that antibiotic because the current antibiotics are not working. Let’s use the ALEEN model to think through how to respond to the son’s request and concerns.

Anticipate: Although you may not have met the patient’s family before, there is a good chance that other team members have. Before the family meeting, it is a good idea to speak with the patient’s nurses and others who have spent more time at the bedside than you have to get a sense of how the patient and family are responding to the patient’s health decline and how

Slide 11

ALEEN⁴

	Conflicts with Patients and Families
A nticipate	Gather all the information about what is happening including patient and family expectations.
L isten	‘Can you help me understand why you feel this way or are so upset?’
E mpathize	‘That is understandable.’ ‘You have every right to be upset’ or ‘You feel ill and want to feel better.’
E xplain	‘Would it be alright if I explained why things are happening as they are?’ or ‘why I’m making this recommendation?’
N egotiate	‘Let’s try to agree on our path forward’ or ‘Let’s come up with a plan.’

AHRQ Safety Program for
Improving Antibiotic Use –
Acute Care

Communication
and Teamwork 11

Slide Title and Commentary	Slide Number and Slide
<p>much they understand what is happening. These individuals should also be invited to the family meeting.</p> <p>Listen: Sometimes our first response to a request that seems off the mark—such as escalation to a new expensive antibiotic in the absence of much data to suggest that the patient has an infection—is to say “that approach does not make sense” or “that’s not going to do anything.” In this case, rather than discuss the pros and cons of ceftazidime/avibactam, it’s probably best first to steer the conversation away from treatment details and more towards getting information about what the patient and family currently understand about what is going on.</p> <p>Empathize: This is essential. Being in the hospital is hard even if you or a family member are not critically ill or dying. It is frightening and associated with great loss of control. Consider saying something like “I am sorry that you are in the hospital. I can’t imagine how frustrating this must be for you.”</p> <p>Explain: Once the patient and family have made their concerns clear, you can go back and discuss specific care issues. It is important to find the right balance between explaining the situation clearly and not explaining the situation as if the patient and family have the same medical degree that you do. Regarding the ceftazidime/avibactam request, you could say, “When you were admitted, we sent tests to see if the reason that your breathing has gotten worse was an infection in your lungs. These tests have now returned and don’t show infection. Unfortunately, the reason that your symptoms have worsened is that the tumor in your lungs has worsened. I do not think that changing to a different antibiotic will help to make your breathing better, but there are other approaches we can take to improve how you are feeling.”</p> <p>Negotiate: Hopefully, a good explanation will lead to the patient and family agreeing that antibiotics are no longer needed. If there is remaining conflict over this issue, you might consider offering an interim approach of stopping vancomycin now and cefepime tomorrow.</p>	

Slide Title and Commentary

Ineffective Communication

SAY:

At times, individuals think they have great teamwork with others, but in reality they may not. This chart shows the percentage of respondents who reported that they had above-average teamwork on their unit.

Note that a smaller percentage of nurses thought they had above-average teamwork compared with physicians.

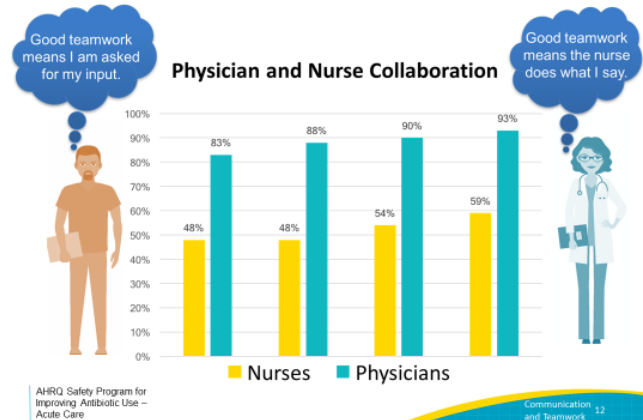
When asked the definition of good teamwork, nurses defined it as “I am asked for my input” while physicians described it as “The nurse does what I say.”

In this example, the physician will miss important information that the nurse can provide unless she changes her thinking about the relevance of this input. When working as a team, it is worthwhile to actively view things from the perspective of other team members in addition to your own.

Slide Number and Slide

Slide 12

Ineffective Communication⁵



Teamwork Climate Across Michigan ICUs

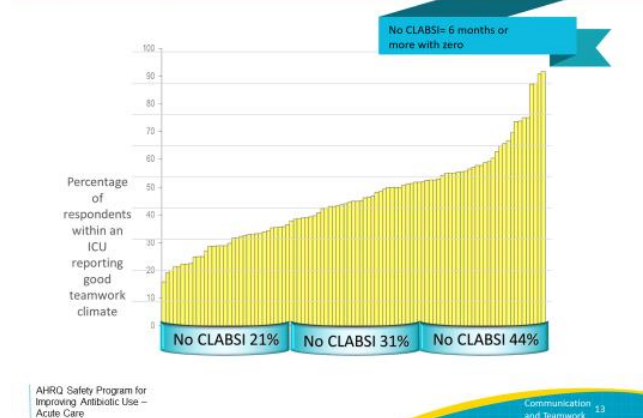
SAY:

A better teamwork climate has been associated with improved patient outcomes.

For example, in a cohort of ICUs in Michigan that participated in a collaborative to reduce central line-associated bloodstream infections or CLABSI, units where higher proportions of respondents reported that there was a good teamwork climate were more likely to have sustained periods of time without CLABSI.

Slide 13

Teamwork Climate Across Michigan ICUs⁶



Slide Title and Commentary	Slide Number and Slide
<p>Approaches To Improve Teamwork Around Antibiotic Use</p> <p>SAY:</p> <p>As part of this program, you should begin daily discussions regarding antibiotic use for all patients being started on or already on antibiotics. Have these discussions on rounds or at a prespecified time.</p> <p>To accomplish this, you can use an Antibiotic Time Out Tool. We have an example of an Antibiotic Time Out Tool on the AHRQ Safety Program for Improving Antibiotic Use website that you can download and use. There is a table of recommended durations of therapy for common infectious conditions at the end of the Time Out Tool for your convenience.</p> <p>To operationalize an antibiotic time out, select a “prompter” (consider the bedside nurse or clinical pharmacist) that brings up the questions on the tool during clinical rounds. Alternatively, you could add questions that address stopping or narrowing antibiotics, conversion from intravenous or IV to oral or PO, and duration of therapy from the time out tool to your daily goals sheets, if such sheets exist on your unit. If you do not have formal rounds, you will need to determine a time during the day to consider antibiotic use in your patients.</p> <p>We recommend having local antibiotic treatment guidelines available at the point of care when antibiotic-related decisions are being made.</p>	<p>Slide 14</p> <p>Approaches to Improve Teamwork</p> <ul style="list-style-type: none"> • Begin daily discussions (Antibiotic Time-Outs) regarding antibiotic use on all patients being started or on antibiotics during patient rounds or at a specific, pre-specified time • How to operationalize an antibiotic time-out <ul style="list-style-type: none"> – Select a “prompter” (consider the bedside nurse or clinical pharmacist) – Use an antibiotic time-out tool (available on AHRQ Safety Program website) – Add antibiotic cessation, narrowing, IV to PO, duration questions to existing daily goals sheet – Create a different method that works for you! • Have local guidelines available at the point of care when antibiotic-related decisions are being made <p><small>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</small></p> <p><small>Communication and Teamwork 14</small></p>

Slide Title and Commentary	Slide Number and Slide
<p>Approaches To Improve Teamwork Around Antibiotic Use</p> <p>SAY:</p> <p>Unscheduled conversations outside of rounds should be used as needed for complex or controversial prescribing issues. These may involve the stewardship team, Infectious Diseases consultants, pharmacists, the bedside nurse, and/or other relevant health care providers. These allow for clinically relevant updates on a patient’s status and a review of the plan with identification of any needed changes.</p>	<p>Slide 15</p> <p>Approaches to Improve Teamwork</p> <ul style="list-style-type: none"> • Unscheduled conversations as needed for complex or controversial prescribing issues <ul style="list-style-type: none"> – May involve the antibiotic stewardship team, infectious diseases consultant, pharmacists, nurses, respiratory therapists, etc. • Allow for updates on patient status and review of the plan with identification of any needed changes. <p>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</p> <p>Communication and Teamwork 15</p>

Slide Title and Commentary

Four Moments of Antibiotic Decision Making

These are the Four Moments of Antibiotic Decision Making. This framework is used throughout the AHRQ Safety Program for Improving Antibiotic Use to ensure optimal antibiotic prescribing using a structured approach.

Moment 1 occurs at the time that initiation of antibiotic therapy is being considered. The prescriber should ask, “Does my patient have an infection that requires antibiotics?” Some patients may have a very low risk of having an infectious cause of their symptoms and others may not need antibiotics immediately.

Moment 2 occurs at the time that the decision has been made to start antibiotics. The prescriber should ask two questions, “Have I ordered appropriate cultures before starting antibiotics? What empiric therapy should I initiate?” Empiric therapy should be based on what organisms are likely to cause the suspected infectious process, the severity of illness, and characteristics of the host. Ideally, guidelines for empiric therapy for different infectious processes will have already been developed by the antibiotic stewardship program in collaboration with prescribers to inform empiric treatment decisions.

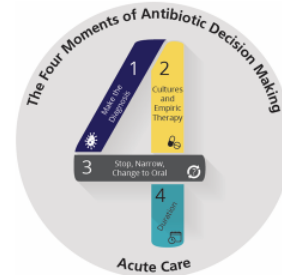
Moment 3 occurs on every subsequent day of antibiotic therapy. The prescriber should ask three questions: “Can I stop antibiotics? Can I narrow therapy or change from IV to oral therapy?”

Moment 4 should occur as soon as it is clear what infectious process is being treated and the patient is demonstrating a response to therapy. The prescriber should ask, “What duration of antibiotic therapy is needed for my patient's diagnosis?”

Slide Number and Slide

Slide 16

Four Moments of Antibiotic Decision Making



AHRQ Safety Program for Improving Antibiotic Use – Acute Care

1. Does my patient have an infection that requires antibiotics?
2. Have I ordered appropriate cultures before starting antibiotics? What empiric therapy should I initiate?
3. A day or more has passed. Can I stop antibiotics? Can I narrow therapy or change from IV to oral therapy?
4. What duration of antibiotic therapy is needed for my patient's diagnosis?

Communication and Teamwork 16

Slide Title and Commentary

Team Antibiotic Review Form

SAY:

This is the Team Antibiotic Review Form. It is available on the AHRQ Safety Program Web site and uses the Four Moments framework. This form should be periodically completed by the stewardship team in conjunction with frontline clinical staff so that it prompts team-based discussions focused on determining if there is room for improvement with regards to antibiotic prescribing for future patients. Consider completing a few forms a month as a team for patients actively receiving antibiotic therapy.

Summary

SAY:

Let's review what we discussed during this presentation.

- Effective communication plays an integral role in the delivery of high-quality, patient-centered care and is critical in ensuring that antibiotics are prescribed in the safest way possible.
- Frontline providers should identify opportunities to improve communication and teamwork by reviewing barriers that they identify around antibiotic prescribing
- The stewardship team and frontline providers should discuss how and where they want to improve communication surrounding antibiotic decisions

Slide Number and Slide

Slide 17

Team Antibiotic Review Form

The image shows two versions of the 'Team Antibiotic Review Form'. The left form is the standard version, and the right form has a blue header. Both forms are part of the AHRQ Safety Program for Improving Antibiotic Use. The forms include sections for 'Moment 1: Are antibiotics still needed?', 'Moment 2: Have antibiotic regimens and indication labels been reviewed?', 'Moment 3: Have specific reasons for repeat antibiotic orders been reviewed?', and 'Moment 4: Have antibiotic therapy been discontinued in the patient's best interest?'. Each section contains a series of questions with 'Yes', 'No', and 'N/A' options.

AHRQ Safety Program for Improving Antibiotic Use – Acute Care

Communication and Teamwork 17

Slide 18

Summary

- Effective communication plays an integral role in the delivery of high-quality, patient-centered care and is critical in ensuring that antibiotics are prescribed in the safest way possible.
- Frontline providers should identify opportunities to improve communication and teamwork by reviewing barriers that they identify around antibiotic prescribing.
- The stewardship team and frontline providers should discuss how and where they want to improve communication surrounding antibiotic decisions.

AHRQ Safety Program for Improving Antibiotic Use – Acute Care

Communication and Teamwork 18

Slide Title and Commentary	Slide Number and Slide
<p>Disclaimer</p> <p>SAY:</p> <ul style="list-style-type: none"> The findings and recommendations in this presentation are those of the authors, who are responsible for its content, and do not necessarily represent the views of AHRQ. No statement in this presentation should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services. Any practice described in this presentation must be applied by health care practitioners in accordance with professional judgment and standards of care in regard to the unique circumstances that may apply in each situation they encounter. These practices are offered as helpful options for consideration by health care practitioners, not as guidelines. 	<p>Slide 19</p> <p style="text-align: center;">Disclaimer</p> <ul style="list-style-type: none"> The findings and recommendations in this presentation are those of the authors, who are responsible for its content, and do not necessarily represent the views of AHRQ. No statement in this presentation should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services. Any practice described in this presentation must be applied by health care practitioners in accordance with professional judgment and standards of care in regard to the unique circumstances that may apply in each situation they encounter. These practices are offered as helpful options for consideration by health care practitioners, not as guidelines. <p><small>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</small></p> <p style="text-align: right;"><small>Communication 9 and Teamwork</small></p>
<p>References</p> <p>Here are the references for the content in this presentation.</p>	<p>Slide 20</p> <p style="text-align: center;">References</p> <ol style="list-style-type: none"> Dayton, E, Henriksen, K. Communication failure: basic components, contributing factors, and the call for structure. <i>Jt Comm Qual Patient Saf.</i> 2007 Jan;33(1):34-47. PMID: 17283940. TeamSTEPPS for Office-Based Care: Communication. Agency for Healthcare Research and Quality, Rockville, MD. September 2015. http://www.ahrq.gov/teamstepps/officebasedcare/module3/office_comm.html. Accessed April 17, 2019. Conflict Resolution (Slide Presentation). Agency for Healthcare Research and Quality, Rockville, MD. October 2014. http://www.ahrq.gov/professionals/education/curriculum-tools/cusptoolkit/toolkit/contentcalls/conflict_resolution_slides/conflictresslides.html. Accessed April 17, 2019. <p><small>AHRQ Safety Program for Improving Antibiotic Use – Acute Care</small></p> <p style="text-align: right;"><small>Communication 20 and Teamwork</small></p>

Slide Title and Commentary	Slide Number and Slide
References	<p data-bbox="836 218 959 254">Slide 21</p> <div data-bbox="836 260 1468 317" style="background-color: #0099cc; color: white; text-align: center; padding: 5px;">References</div> <ol style="list-style-type: none"> <li data-bbox="873 333 1430 457">4. ALEEN Script. Johns Hopkins Medicine, Armstrong Institute. Kentucky Hospital Improvement Innovation Network. KY. July 2012. URL: http://www.khen.com/Portals/16/Documents/PSCTCommunicationsLab.pdf. Accessed April 17, 2019. <li data-bbox="873 464 1419 562">5. Huang DT, Clermont G, Sexton JB, et al. Perceptions of safety culture vary across the intensive care units of a single institution. Crit Care Med. 2007 Jan;1(35):165-76. PMID: 17110876. <li data-bbox="873 569 1414 642">6. Pronovost PJ, Berenholtz SM, Goeschel C, et al. Improving patient safety in intensive care units in Michigan. J Crit Care. 2008 Jun;23(2):207.21. PMID: 18538214. <div data-bbox="857 705 967 741" style="font-size: small;">AHRQ Safety Program for Improving Antibiotic Use – Acute Care</div> <div data-bbox="1344 720 1430 741" style="font-size: small; text-align: right;">Communication and Teamwork 21</div>