

Handouts for Problem-Based Learning Module: Do You Need Antibiotics?

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Team Formation Questionnaire

Name: _____

Hometown: _____ H.S. GPA (& year of graduation) _____

Hobbies/Interests: _____

Preferred times for team meetings and group work (please circle as many as possible):

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	Morning	Morning	Morning	Morning	Morning	Morning
Afternoon	Afternoon	Afternoon	Afternoon	Afternoon	Afternoon	Afternoon
Evening	Evening	Evening	Evening	Evening	Evening	Evening

Why did you choose pre-pharmacy or what component of pre-pharmacy interests you?

Describe your experience with microbiology and anatomy & physiology. What courses have you taken in these topics?

Have you ever been a leader/officer in an organization? If so, in what capacity?

Would you be willing to be a team leader in this course?

The information provided here will assist in forming good functioning teams. Please be as generous as possible with preferred times available for group work. If there is a person you wish to have as a group member, please write his/her name below. Please write no more than one name.

Do You Need Antibiotics?

As an intern in the Walgreen's Pharmacy on Wilbraham Road, you retrieve dozens of antibiotic prescriptions per day. You frequently overhear patients talking about how they ask their doctors for antibiotics for their cold and flu symptoms. Your Pharmacy team learns that there have been several recent incidences of Methicillin-Resistant Staphylococcus Aureus (MRSA) in Springfield. What can you do to educate your patients about the appropriate use of antibiotics? Your pharmacy supervisor will give a \$500 bonus to the best educational tool that is developed.

1. Individually, think about some of the main issues regarding antibiotic prescriptions and patient's perceptions of these drugs. Write down these issues and any questions that they raise for you.
2. Within your teams, pair up and share your questions with one another.
3. Share your list with your group, and come to a consensus about the most important issues and questions you need to address in order to educate your patients.

Suggestions and Inspiration for Research

- *Educational information* – What is it that people need to know? Who is your target audience? What do they already know? What misunderstandings might they have?
- *Impact* – What are the societal and economic consequences of not having this information? What kinds of health issues might result? What populations are most vulnerable? Who bears the cost of inappropriate antibiotic use?
- *Messaging* – How and where is this information currently being delivered? Is it effective? What audiences might be missing this information? Is there important information missing from the current messaging? Are there particular types of messaging that have been under-utilized?
- *Design* – How can you use all of this information to design an educational tool that will convey this message? How can you make this tool visible, appealing, interesting, accurate, and useful?

Outside of class, meet with your teams and assemble as many answers as you can to these questions. Pay attention to your sources and note their reliability. Sources can include books, magazines, journal articles, personal interviews, observations at local pharmacies and health care centers, surveys, or others.

In one week, (Wednesday January 27, 2016) come to class with:

1. A completed progress report form. This should be completed individually.

In two weeks, (Wednesday February 3, 2016), come to class with:

2. A technical written report summarizing your group's research and evaluating the reliability of your sources. This should be written and assembled as a group.
3. Your group's complete educational tool. Be ready to present it to the class and discuss how it will be used to effectively educate the public about antibiotic use and misuse. Presentations will be done in a gallery-walk format where each team displays their educational tool in a different area of the classroom, and all teams circulate to visit their peers' displays.
4. A peer-evaluation for each of your team-mates and a self-evaluation. These should all be completed individually.

Your work will be evaluated according to:

1. Your ability to work in a team. Your self-evaluation and the peer-evaluation by your group members will contribute to this individual grade using the teamwork rubric below. (20 points)
2. The accuracy and depth of the technical report. I will determine this group grade using the Technical Reports rubric below. (16 points)
3. The creativity and presentation of your educational tool. I will determine this group grade using the Educational Tool rubric below. (12 points)

Name: _____

Do You Need Antibiotics? Progress Report

Due: Wednesday January 27, 2016

1. Summarize the research that you personally have done so far and your major findings.
2. Summarize the major findings and ideas of your group so far.
3. Describe your role in this project and how it was decided.
4. Evaluate the effectiveness of your group so far. Have you been working well as a team? What have been your major strengths and challenges?
5. Summarize your plans for completing the rest of the assignment, and any support or clarification that would be helpful to you and/or your group.

1. Teamwork Rubric:

Teamwork	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
Communication	Communicates freely, listens carefully, considers everyone's opinion.	Usually communicates freely, but sometimes hesitates to offer information	Occasionally communicates openly when asked, not always considerate of other opinions	Rarely communicates voluntarily, may attack or blame, have negative contribution to meetings.
Participation	Routinely provides useful ideas in the group. A definite leader who contributes a lot of effort	Usually provides useful ideas in the group. A strong group member who tries hard.	Sometimes provides useful ideas in the group. A satisfactory group member, does what is required.	Rarely provides useful ideas in the group. May refuse to participate.
Problem-solving	Actively looks for and suggests solutions to problems	Refines solutions suggested by others	Does not suggest or refine solutions, but will try others' suggestions	Does not try to solve problems or help others solve problems.
Organization	Organizes and divides work responsibly and fairly, completes tasks on time.	Defines and organizes own responsibilities, and is usually aware of group needs. Occasionally loses track of time.	Sometimes defines and organizes own responsibilities, doesn't focus on group, often loses track of time	Poorly defines and organizes responsibilities, thinks only about individual tasks, not results or objectives.
Preparation	Always ready for action, well-informed, has good ideas and researches thoroughly	Mostly prepared for meetings, has some ideas and good research	Somewhat prepared for meetings, has some research but more ready to follow	Not prepared for meetings, uninformed, not ready to act

2. Technical Report Rubric:

Technical Report	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
Content	Report thoroughly and accurately addresses the differences between viruses and bacteria and the mechanism of antibiotic action. All sources are reliable and are clearly evaluated.	Report discusses bacteria, viruses, and antibiotic action, but is missing some elements or contains some inaccuracies. Most sources are reliable, and they have been evaluated.	Report is missing many key elements of the topic and/or contains substantial inaccuracies. Many sources are unreliable or citations are missing, and the evaluation of sources is superficial.	Report misses the main topics or presents mostly inaccurate information. Most sources are unreliable or absent altogether. Sources were not evaluated.
Analysis of impact and messaging	Report clearly analyzes the societal and economic impacts of improper vs proper antibiotics use. It is evident that the group has thoroughly researched the current messaging and its effectiveness.	Report does a good job analyzing the societal and economic impacts of antibiotic use. The report includes a discussion of current messaging and its effectiveness.	The analysis of societal and economic impacts is superficial and/or incomplete. A discussion of current messaging is superficial and/or incomplete.	Analysis of one or more elements (societal impact, economic impact, and messaging) is absent or largely incomplete.
Organization	Report is organized clearly, easy to read and understand.	Report is mostly organized, a good effort was made.	Report is somewhat organized, but challenging to follow at times.	The report is largely unorganized and challenging to follow.
Spelling and Grammar	There are no spelling or grammar errors.	There are very few spelling or grammar errors.	There are many spelling or grammar errors.	Abundant spelling and grammar errors make the report difficult to understand.

3. Educational Tool Rubric:

Educational Tool	4 (Excellent)	3 (Good)	2 (Fair)	1 (Poor)
Presentation	Presentation is clear, complete, compelling, and comprises all group members.	Presentation is mostly clear, there is clear evidence of effort and attention, and all group members participate in some way.	Presentation is somewhat confusing, group members are not quite all on the same page, or only select members participate.	Presentation is unorganized, confusing, and uncoordinated. More than one group member does not participate.
Design	Educational tool is unique and interesting, design is appealing and easy to read/watch. The design complements the message.	Educational tool is interesting but not necessarily unique. Design is good but colors, fonts, sound or visuals somewhat obscure the message	Educational tool is similar to other current messaging. Design is ok; colors, fonts, sound or visuals obscure the message	Educational tool is not at all unique, and the design completely obscures the message.
Content	The content of the educational tool is appropriate and relevant for the audience. All information presented is completely accurate.	The content of the tool is mostly appropriate and relevant. Information is not entirely accurate.	The content of the tool is either not appropriate for the audience or mostly irrelevant. There are major inaccuracies present.	The content of the tool is largely irrelevant, inappropriate for the audience, and inaccurate.

Do You Need Antibiotics? Self- and Peer-Evaluations

Due: Wednesday, February 3, 2016

How would you rate yourself and your team members in the following categories regarding *this* project? (Circle the appropriate number). See the Teamwork rubric for a description of the evaluation criteria. 4= Excellent, 3 = Good, 2 = Fair, 1= Poor

1. Your Name:

Communication	4	3	2	1	Comments:
Participation	4	3	2	1	
Problem-solving	4	3	2	1	
Organization	4	3	2	1	
Preparation	4	3	2	1	

2. Team member's name:

Communication	4	3	2	1	Comments:
Participation	4	3	2	1	
Problem-solving	4	3	2	1	
Organization	4	3	2	1	
Preparation	4	3	2	1	

3. Team member's name:

Communication	4	3	2	1	Comments:
Participation	4	3	2	1	
Problem-solving	4	3	2	1	
Organization	4	3	2	1	
Preparation	4	3	2	1	

4. Team member's name:

Communication	4	3	2	1	Comments:
Participation	4	3	2	1	
Problem-solving	4	3	2	1	
Organization	4	3	2	1	
Preparation	4	3	2	1	

5. Team member's name:

Communication	4	3	2	1	Comments:
Participation	4	3	2	1	
Problem-solving	4	3	2	1	
Organization	4	3	2	1	
Preparation	4	3	2	1	