CHAPTER 11

Sample Learning Activity 9 (Complex Small Group MUVE Learning Activity)

Clinical Rounds

The purpose of this chapter is to illustrate a complex MUVE small group learning activity. This illustration demonstrates that a MUVE learning activity can offer effective learning and achieve learning outcomes that are difficult to achieve using traditional methodologies.

This chapter is for you if:

1. You are interested in designing a complex MUVE learning activity.

2. You are interested in a form of clinical simulation that offers the pedagogical advantages of MUVE learning.

Sample Learning Activity 9: Clinical Rounds

Introduction and Purpose

MUVE learning is a form of simulation learning. In any clinical simulation, students are emerged in a clinical scenario, learning together in an environment similar to ones in which they will practice in the future. “Clinical rounds” is a MUVE simulation in which health care students, guided by a group activity leader, do clinical rounds on a patient who has a disease the students are studying in class.

The purpose of this activity is to explore specific disease pathologies by interviewing patients who have the disease. A small group of health care students spend thirty minutes in a MUVE hospital reviewing a specific disease, briefly talking with a patient who has the disease that is the focus of the learning activity, and then discussing as a small group the care planning and clinical management appropriate for the patient. Although designed originally for nursing students, this activity would work well for medical students, respiratory therapists, or students from other health care disciplines.
**Target Population**

This activity is effective for both undergraduate- and graduate-level health care students. For novice practitioners or undergraduate students, this exercise is typically led by the course instructor. The “patient” is either a teaching assistant or the instructor, who in this instance would be “controlling” two avatars at once, one as the learning activity leader and the other as the patient. For graduate students or those in advanced practice courses (nurse practitioners, clinical nurse specialists, medical students), the learning activity can be designed so that students take turns assuming both activity leader and patient roles. Activity leaders can be graded according to a grading rubric specific to clinical rounds. Students acting in the role of patient can be graded according to their ability to design and execute a representative case study for the disease being discussed.

**Performance Outcomes**

By the end of the thirty-minute clinical rounds learning activity, participants will have:

1. Met on time at the MUVE region chosen for the learning activity.
2. As a group, reviewed essential information about the pathology focus for the learning activity.
3. Identified disease specific issues that should be raised with the patient (steps 1 through 3 take ten minutes).
4. Briefly discussed the patient’s condition with the patient, identifying his or her priority issues and concerns.
5. Asked the patient a few questions related to his or her condition, coping, knowledge, and so on (steps 4 and 5 take ten minutes).
6. As a group, discussed the patient’s presentation and identified clinical and care priorities.
7. Identified and shared one thing they learned from clinical rounds that day.
8. Reviewed their own and the group’s performance, including feedback and suggestions for improvement in future group clinical rounds (steps 6 through 8 take ten minutes).
MUVE Setup

Setup for this learning activity requires careful and detailed preparation. The following elements must be planned and executed:

1. **Scheduling**: Scheduling this learning activity is done most effectively online. The activity leader can use a class web discussion thread to identify dates, times, and clinical focus for clinical rounds activity. Depending on class size and numbers of students participating, multiple clinical rounds sessions can be offered. Ideally, six students participate per group. Students can sign up for the clinical rounds session in an online discussion thread. For classes that meet in person, students can sign up on hard-copy paper or whiteboards.

   *Instructional Note*: Students often ask to go to more than one clinical rounds learning activity on the same topic. This does not work very well as they have preexposure to the issues that will be raised in discussion.

2. **Location**: When students sign up for a clinical rounds session, the topic to be covered should be listed along with the date, time, and location for meeting. This learning activity requires four separate locations within a small area that is easy to navigate. First, students will convene for clinical rounds at a location that is easy to find. When using Second Life's® Second Health Hospital for the learning activity, the Polyclinic landing area is a good place to meet, as this area is right outside the hospital. The second location used for the assignment will be a nonpublic area in close proximity to the patient’s location in the clinical environment. This could be outside the door to the patient’s room or in the clinical area away from the patient where the group can discuss the patient without being overheard. The third location will be a clinical environment where the patient is located (clinic, emergency department, wellness center). In the last location, a few short minutes of postconference discussion takes place. Ideally, this is in close proximity to the patient’s location but still in a place where discussion can be relatively private. It takes a bit of time for students to move their avatars from one place to the next, so these four locations should be as near to each other as possible. Early in the semester, I use the clinic sites just inside the hospital for clinical rounds because they are in close proximity to the Polyclinic landing area. This makes it easier for students to get to the learning activity location easily. As the semester progresses and students have developed their avatar walking skills, I utilize areas of the hospital that require covering more distance.

3. **Preparation of the Patient**: The instructor should make an avatar to serve as the patient for the learning activity. The avatar’s gender, appearance, and so on can be modified to match the clinical presentation planned. Novice instructors may find it easiest for a teaching assistant or other instructional helper to act in
the role of patient. In this case, the activity leader should coach the assistant on what type of disease manifestation will be presented and what key issues he or she would like showcased in the patient’s presentation. The patient avatar should be placed in the clinical location chosen for the learning activity and the assistant given the login information needed to log on, access the patient avatar, and proceed to the location where they will be interviewed by students on clinical rounds. They should wait there, sitting on a stretcher or sitting in a clinic interview area. They should do so a few minutes prior to the start of the learning activity to be in place and ready at the beginning of the activity. The activity leader can check in with them a few minutes prior to the beginning of the activity to ensure they are ready. This method relies on a clear written mini case study for the assistant to follow. An example of such a clinical presentation is as follows:

Mrs. Jones is a newly married engineering student who has recently been diagnosed with systemic lupus erythematosus (SLE). She has come to the clinic for follow-up on abnormal renal function studies that her physician ordered as part of the diagnostic workup for her. Mrs. Jones knows very little about SLE and is focusing mostly on the fatigue that is preventing her from studying. Her grades are falling, and she has had to quit her job. At some point in the interview, she states, “I am just so stressed and exhausted that I can’t think clearly and am having difficulty making decisions.”

Pertinent labs: positive SE factor, positive ANA, and slight elevation in BUN and creatinine.

Elements to emphasize while acting out the patient role: fatigue and stress, inability to carry on life as usual (work, school, new marriage, etc.).

It is easier and in some ways preferable for the instructor to assume the patient role in addition to the activity leader role. It is not difficult to do this. The activity leader is most active in the first and last ten minutes of the clinical rounds activity, participating little in the middle ten minutes. The patient is active only in the middle ten minutes of the activity. There is very little overlap between the two, making it relatively easy to act as both activity leader and patient. It is easy to have two MUVE viewer screens open on one computer, one for the leader avatar and one for the patient avatar. The instructor moves back and forth between the two screens as the learning activity progresses. One significant advantage to doing the activity this way is that the instructor can control the patient’s responses to students, making rich teachable moments possible.

Acting in multiple roles requires the activity leader to guide several avatars at the same time. It involves having two MUVE viewers open at one time, each taking up half the computer screen. On one screen, the instructor is logged in
with the activity leader avatar. On the second screen, they are logged in with the patient avatar. (See “Tools to Use: How to Manage Two Avatars at One Time.”) This method enables the instructor to control patient responses in a way that guides the conversation and creates learning opportunities. If a student asks the patient avatar an inappropriate question, for example, the instructor can have the patient respond in a way that is instructional (“How can you ask me that? That is too personal!”). This can create a learning moment that comes from issues that spontaneously arise. Some of the richest learning comes from these experiences! Once the instructor becomes comfortable with managing two avatars, he or she may decide to add a third. This avatar could be a consulting health professional such as a social worker or physical therapist who enters into the clinical rounds discussion. This can be an excellent way of illustrating the perspective of multiple care providers on the same patient.

4. Creation of an evaluation rubric: Once the clinical focus for clinical rounds has been selected, the activity leader identifies specific content that students are expected to apply in the clinical rounds activity. This is added to the performance outcome evaluation rubric for each participant. For each pathology studied, this can include the most important facts that a health professional needs to know about the pathology. It may also include pertinent lab values, suggested treatments, and drug therapy associated with the disease. The instructor should add professional role and interpersonal and group dynamics objectives that are expected to be applied during clinical rounds. The evaluation rubric can include a place for the performance of each student to be addressed, so grading from the activity transcript is easy once the activity is done. (See an example for a clinical rounds activity-grading rubric that focuses on SLE in Appendix 12 and a template-grading rubric for the clinical rounds activity in Appendix 13.)

Activity Procedures

1. The instructor will select a disease focus and write a brief case study description for the teaching assistant. Include the most important salient facts about the disease (no more than ten).

2. Identify a MUVE region location that is appropriate for the exercise (clinic, intensive care unit, emergency department, wellness center). Four total activity locations for the activity (described below) will be identified within the area chosen.

3. Prepare the patient avatar, changing appearance, gender, ethnicity, and physical appearance to match the clinical presentation (take into consideration demographic risk factors of age, race, and gender).
Instructional Note: As the instructor develops expertise with constructing avatars, he or she may begin to adapt the body of the avatar to match the clinical presentation.

4. The instructor will post the dates, times, MUVE region and location, and clinical focus for each clinical rounds session. The instructor should cap the sign-up at six (or five and one student activity leader).

5. The instructor next decides who will act in the role of patient. If an assistant is planned for the role, provide a clinical scenario and the login information for the patient avatar.

6. At the time scheduled for clinical rounds, the activity leader meets participating students at the meeting location. Because of the short duration of this exercise, students are encouraged to arrive inworld ahead of the scheduled time, so they are ready to begin on time. As the group is gathering, the activity leader assigns one of the participating students the responsibility of reminding the leader to copy the learning activity transcript when the activity is completed and before completing the learning activity. (In Second Life®, for example, the chat box is cleared as soon as all participants leave, so remembering to copy the transcript is crucial.)

7. Clinical rounds begin with the activity leader welcoming the participants and leading the group to an area outside the location where the patient is waiting. The leader asks the group what they remember about essential elements of the disease. The leader keeps track of the student responses, checking critical elements listed on the clinical rounds evaluation content rubric. After the students have finished giving their input, the leader adds any information from the rubric that the group has missed. This part of clinical rounds should take about ten minutes. A sample transcript of this first third of the clinical rounds activity can be found in Appendix 13.

8. After this introductory portion of clinical rounds is completed, the leader says, “OK, let’s go talk with our patient.” Students should be reminded that the patient interview will only be ten minutes long and that it does not entail obtaining a complete history, vital signs, and physical assessment. The group interacts with the patient with a goal of exploring the patient’s experience and understanding of his or her disease, as well as some information about how having the disease has changed the patient’s life. The leader should not speak during this period unless the group obviously needs guidance or if an error is
made that needs to be addressed immediately. At the end of ten minutes, the leader thanks the patient and leads the group back outside the clinical area to a private area where they can discuss the patient's condition. (For a sample of the second ten minutes of clinical rounds, see Appendix 15.)

9. Leaving the patient, the group reconvenes outside the patient’s location in a nonpublic area where they can have a private conversation about the patient and his or her condition. The activity leader begins this part of clinical rounds with a question that focuses on some aspect of the patient’s presentation. This question can vary a lot, depending on what the leader would like to focus on for the discussion part of clinical rounds. If the group, for example, had a good review of the pathology and focused on it well, the leader may choose to focus on a psychosocial aspect of the illness or patient teaching. Care planning should be the focus of this third aspect of clinical rounds. (See a sample of this last third of clinical rounds in Appendix 16.)

10. A few minutes before the end of clinical rounds, the leader should draw this portion of clinical rounds to a close and lead the group out of the clinical area into a place for a “postconference.” For the last few minutes in this final location the leader asks questions such as “How did clinical rounds go today? What is one take-home piece for you?” This is a good time to affirm the “group brain,” to restate that clinical rounds is a safe place to make mistakes (particularly if mistakes were made), and to affirm group learning. When students have completed their contributions, the activity leader thanks the group for their participation and closes clinical rounds.

11. The activity leader copies the clinical rounds transcript into a Word document. This should be distributed to the participating students and the instructor for subsequent evaluations using the clinical rounds grading rubric. The transcript can be posted for review by the whole class after deidentifying the learning activity participants. To de-identify students in the discussion use the “find and replace” function to replace student names with “Student 1,” “Student 2,” and so on.

_Instructional Note:_ The activity leader should identify a student whose job it is to remind the leader to copy the discussion transcript from the chat box at the end of the group activity. Once the last person leaves the Second Life® area, the chat box is cleared and the discussion cannot be retrieved.
Evaluation

The clinical rounds grading rubric is used to evaluate the participation of each student as well as group performance. Summative evaluation statistics can be used both for evaluation of each student and for evaluation of MUVE clinical rounds activities in the course and across semesters (see Appendix 17).

For graduate-level courses and advanced role students, the assignment may be constructed so that students take turns being the patient and clinical rounds leader. In this case, evaluation criteria may be constructed to include the patient’s ability to present a representative case study of a particular pathology and the leader’s ability to effectively lead participants through the three stages of clinical rounds and the activity postconference. When these elements are included, role performance as activity leader and patient should be included in the clinical rounds performance outcomes. This option is a great way to develop clinical rounds leadership and case studies capabilities. It also frees the instructor to focus on evaluation and feedback.

Instructional Note: The success of this learning exercise is dependent on the activity leader’s ability to focus on a small number of salient features of a disease for presentation in clinical rounds. For example, in the clinical presentation listed above, the activity leader could focus on the symptom of fatigue (very common in SLE) and the way that symptom contributes to the stress level of the patient. Clinical rounds could also focus on the role of stress and fatigue in SLE patients. Depending on the “patient,” issues such as pregnancy (which can exacerbate both SLE flares and renal dysfunction) could also be included. Risk factors and issues related to lifestyle should always be included.

A sample description of the clinical rounds activity for use with the course syllabus may be found in the Appendix 18.

Final Comments: Most students love this learning activity. In the graduate pathology class I teach with clinical rounds as an extra-credit option, students often say, “This is where it all comes together.” There is often a clear sense of team identity and “the group brain.” Students often comment that because of the support of their group, they are not afraid to make mistakes and that, although very challenging, this learning activity is fun and energizing.

Tools to Use: How to Manage Two Avatars at One Time

1. In Second Life®, to operate a second avatar, first create a second avatar. The basic Second Life® account allows you to make multiple avatars. Every avatar created has a separate name. It is a good idea to label each avatar with a generic label such as Patient, Physician, Respiratory Therapist, and so on. This way the instructor can change the gender, age, and
appearance of each created avatar easily. (For names, the school name could be combined with the role name: for example, SONDHPatient.)

2. Log into Second Life®. On the drop-down menu on the upper left top of the screen, click on “ME,” then “Preferences” and “Advanced Settings.” On that screen, there will be an option to “Allow multiple viewers.” Click on this and save the settings.

3. Minimize your current Second Life® screen. Adjust it to about half of your computer screen.

4. Keeping this screen open, click on your Second Life® icon or start up as if you are opening Second Life®. Log on with the “avatar” logon. Once logged on, similarly adjust the size of the screen to be about half the size of your computer screen.

5. Using more than two avatars at once is a little more complicated, and takes practice! What works best is keeping two screens “in play” at once, with the others reduced to a small size where you can enlarge them when needed.

Additional Resources

In the appendix section, there are a number of resources for this learning activity, including a description of the assignment that can be used for the course syllabus or for introductory material (Appendix 17) and sample learning activities for clinical rounds on asthma (Appendix 19), osteoporosis (Appendix 20), hyponatremia (Appendix 21), pituitary disease (Appendix 22), peripheral vascular disease (Appendix 23), and pneumonia (Appendix 24). Also included is template that can be used for planning a pathology-focused clinical rounds of your own (Appendix 25).

Reader’s Roadmap: Where Are We?

Chapter 11 presented a complex small group learning activity. In Chapter 12, a second one is described in detail that enables participants to quantify and analyze their collaborative skills within a team.