

Summative Physical Exams without a Standardized Patient

Initial ASPE Listserv request from Rachel Osowski (rachel.osowski.1@UND.edu):

I am wondering if anyone has ideas or solutions on grading physical exams for students online without utilizing an SP? I know that the history part of the H & P could be done using an SP in a telemedicine scenario, but our institution is considering trying to get our MS1 and MS2 students through their physical exam portion without the use of a standardized patient and we are researching ways other institutions may be doing this.

Email response to the question:

1. From Gail Swarm: Student does it at home with whomever is with them (spouse, family). They would have to have the ability to video tape and upload.
2. From Leanne Rae: We had a doctor do the exam on an SP, but this could be done on a fellow faculty member (etc.). The doctor omitted certain items or did them incorrectly in some manner. Due to limited camera angles we made sure the doctor said each thing she was doing and how, often as PA's are assessed.

The students needed to watch this via CANVAS and then using a restructured SP checklist the students needed to assess what was done incorrectly and why, or what was omitted. Then we had the doctor additionally do a write up; again, making some errors. The students needed to grade this using a revised rubric "grading" the doctor.

Our faculty reviewed the students' checklist and grading rubric and using yet another rubric for the faculty, we assessed the "assessors".

We came up with this pilot out of a sudden necessity as many of us are. I believe now more than ever, having individuals that "think outside of the box" is a great asset for the clinical skill areas. Theater people and others can think on their feet, and often see solutions where others may see problems.

3. From John Darrow: The students want to use dogs or teddy bears or pillows to demonstrate the competency. I am in no way in favor of this but please find below our current recommendations. (draft) One of my concerns with finding an alternative to the physical head to toe exam performed on a person is setting a precedence that all students will now in the future want to perform the exam on a teddy bear or child or tree or any other body like object that may be available. Keeping in mind that these are unusual times I realize that we will need to make exemptions and get the students graded. I just really hope this doesn't come back and bite us in the butt with all other students from this point on wanting to perform a clinical physical head to toe exam on a pillow. Here are the steps we feel will give us a reasonable assessment strategy:
 - The event will be live recorded using WebEx with the host stationed here at the office and a PAT (physical assessor) either at home or at a secure location with good internet. The exam will be scored by memory

Summative Physical Exams without a Standardized Patient

immediately after the student has finished. This is as accurate as we can make it compared to all the other students who have taken the class. Students can download the WebEx app for free (I am pretty sure). It is pretty easy to use. We will keep a copy of the exam here at the office from the WebEx or b-line system.

- The student will need to set up a clinical setting with the appropriate tools available for the exam. An alternative would be having the student use our exam rooms and bring their pillow or whatever you consider an adequate patient (maybe another student) with them to the office.
 - The patient will need a proper gown and drape.
 - If using a remote location, the student will need to position a computer or smart phone in such a way as to provide optimum view of the student and patient interactions. We may need to request repositioning of the video feed to provide optimum viewing for different components of the exam. If the exam is performed at the office, we have all the cameras and recording equipment already set up.
 - As per all physical H2T exams for nursing. The student will have 10 minutes, without notes, to write a checklist on a single sheet of plain white typing paper for their use during the exam. (this will be recorded in process)
 - The time for the exam is 1:15min. If we have any technical problems during the exam, we may need to increase the exam time.
 - The students are responsible for all items on the complete checklist. (I will make an exception for this testing period and allow the student to verbalize the fundoscopic exam, but they will need to demonstrate a proficient skill using the fundoscope.) The ear exam, mouth exam and nose exam using an otoscope will still need to be performed.
 - The History component of the exam can be performed remotely with a standardized patient.
 - The student will also receive a separate 10 minutes, without notes, to write a checklist for themselves for the history. (this will be recorded in process)
 - A passing grade for the physical is 90% with partial credit for attempted items.
 - The passing grade for the history is 85%
 - I am really concerned with folks getting infected so for now I will need to keep as much distance between students and our assessors. The best we can do is watch the exam remotely. Even if it is from a different room and the student brings in their own patient, we are opening ourselves up to a host of liabilities.
4. From Laurie Callen: Depending on how many faculty you have to score,
- Consider any cognitive test - checklist, exam, quiz, etc. - this is lowest effort, and easiest to score but may not assess everything you want.
 - Short answer: You present a case study to a participant and ask them to write / select the appropriate physical exam maneuvers.

Summative Physical Exams without a Standardized Patient

- Written or oral: Student provides detail laying out what they would do and why, and how they would do it (including positioning of instrument or patient), to be assessed by faculty member
 - "Based on her history of cough, I would use a light source to look into her mouth and ask her to say 'ahhh'. I would be looking for x, y and z." (this could be oral or written) .
5. From Kerry Knickle: I realize these investigations may be a necessity in certain instances.
- Wherever and whenever possible, we are working to keep SPs active and involved on-line in this impossible climate, finding creative ways to combine and retain the summative practical examination with a simulation component.
 - How can we support the simulation experience and minimize excessive income loss for the SP?
6. From Raquel Perez: We are still in the process, but here is our plan. We decided to have our 1st year students record themselves with a directed maneuvers "event". We list examination we feel they can perform on themselves; I have stepped back "into the room" as a PI and perform a live video of how to examine yourself. They have to explain the anatomy and what each maneuver might discover, this I also model for them. This does limit the examinations they can do, but for the first-year students, this seemed most "fair". Our final exam will take place a week from Friday, I will be happy to follow up with you about our results.
- For our second-year students, we are instructing them to teach patients how to find and describe physical findings themselves, they will be graded on an evaluation of, and diagnosis based on findings from interview and this physical. As opposed to a SOAP, they have to openly communicate such with the SP in the closing of their encounters... We feel this kills two birds, one building advanced communication skills as well as interpretation of physical findings...
 - Fortunately, we hosted our 3rd year boards prep events before all this hit... I have no idea how we would handle that, other than to wait for all of this to pass and bring students back early in the fall (which is part of possibilities we are discussing). -Raquel Perez
7. From Tony Errichetti: When you say grading, I'm assuming (I may be wrong) you mean providing a grade that counts, as in summative assessment. It's that time of year
- Summative SPs exams are valid to the degree that they represent and measure what happens in a clinic setting, face to face between doctor / healthcare practitioner and patient. So, I don't think you can validly assess in a summative way a physical exam that would ordinarily be done in person via telemedicine. It would make for an interesting formative exam with debriefing though. And you could design a summative exam that assess how to conduct PE skills that need to be done via telemedicine -

Summative Physical Exams without a Standardized Patient

my stepdaughter is a physician and she's doing a lot of this now, so it's going to be a growing area of interest.

8. From Heidi Lane: Our team is scoring only hx at this point. We are hoping to gather at some time and do an intensive pe skills training and assessment. I do think there is value in keeping students practicing their pe skills on humans in their homes, but a virtual assessment of pe skills for a grade is not something supported by the literature.
9. From Rachel Older: Typically, we run a 3 station physical exam OSCE: Station 1: ENT Exam, Station 2: Pulmonary Exam, Station 3: Cardiac Exam. It was set to be delivered in 3 week's time, which means we have had to make alternate arrangements with our state-wide shut down in not being able to utilize Standardized Patients as well as conducting this from remote locations. We plan to send our students a WebEx link and login. They will get verbal directions from their facilitator (instead of a door note). We will record the WebEx to download into a secured file following.
 - This is how we are going to conduct our Clinical Skills Examination 2 (CSE 2):
 - Station 1: ENT: students will describe the Ear, Nose, Throat examination techniques and the facilitator will share screen a photo of the oral cavity as student describes the anatomical names. This will be done with the lymph node chains as well. They will demonstrate the external ear exam on themselves.
 - Station 2: Pulmonary: The facilitator will share screen a photo of the anterior, posterior, and later thorax to explain the exam and mark the areas for percussion and auscultation.
 - Station 3: Cardiac: The facilitator will share screen a photo of the anterior thorax and student will explain cardiac exam and mark landmark locations.
 - This will become a pass/fail portion of the examination; student ranking low will receive faculty remediation. We will conclude the a second portion of this exam when students return in the fall (CSE 2.0) that will be one station where students will need to prepared to perform the ENT, Cardio, and Pulmonary exam, though the door note will only require cardiac and pulmonary exams with a SP.
 - Students must pass both portions of the exam.