How to Facilitate Physical Exam Sessions at the MD Program - Faculty Development Video (2025)

TITLE SLIDE – Facilitator Guide to Teaching Physical Exam Sessions

Thank you for agreeing to facilitate physical exam sessions and being involved in mentoring and teaching medical students at the MD Program. This short video will highlight the teaching expectations and most important aspects of how to run these physical exam sessions.

SLIDE TWO: Objectives

- The objectives of this short video are to briefly describe the structure and purpose of the physical exam curriculum. We will review the various steps of how to prepare for and facilitate the sessions including the teaching philosophy, discussion of the teaching materials, student and facilitator expectations as well as how the sessions are organized. Lastly, this video will discuss how the physical exam curriculum is assessed and how facilitators can assist students in preparing for their OSCE.

SLIDE THREE: Describing the physical exam curriculum

SLIDE FOUR: What ARE physical exam sessions?

- The purpose of physical exam sessions is for medical learners to develop the technical skills of how to examine patients in context of their medical condition.
- Physical exam sessions are a mandatory part of the MD Program curriculum at the University of Alberta and encompasses the first 2 years of medical school. For each session, facilitators will be teaching the same content several times over a 4-hour period. Physical examination sessions vary in duration from 60, 90 to 120 minutes depending on learning objectives and content, and thus physicians may teach the same session to TWO to FOUR groups of students: each group comprising of 5 – 6 students.
- Medical students learn physical exam skills such as how to assess vital signs, the cardiac and pulmonary or neurologic exam as examples. Recognize that the physical exam curriculum runs parallel to the block that medical students are in. For example, first year students in cardiology block will learn cardiac anatomy and physiology, cardiac diseases, and the cardiac physical exam and cardiac-based cases for communication sessions.
- Students are assessed with a formative practice OSCE at the end of Year 1, and a summative OSCE at the end of Year 2.

SLIDE FIVE: Physical Exam Curriculum Overview

- Medical students receive a lecture from the physical exam leads on the expectations and overarching foundations of the physical exam during their Foundations block of Year 1. Year 1 curriculum includes learning about general appearance and vital signs, examination of the head and neck including otoscopy, as well as the thyroid, cardiac and pulmonary examinations that are held over several sessions during the year. There are

end of year review sessions where OSCE checklists are introduced to help students prepare for their formative OSCE at the end of Year 1.

- In Year 2, students learn to examine the gastrointestinal and reproductive system as well as the musculoskeletal and neurologic exam. There are several sessions as well on the psychiatric exam, diabetic foot, pediatric exam and breast exam as well as a year-end review where students study from OSCE checklists in preparation for the summative OSCE at the end of year 2.

SLIDE SIX: How facilitators can prepare to teach physical exam:

- Preparing to teach physical examination is broken down into 7 subsections which include discussing the overarching teaching philosophy of physical exam, as well as description of how the sessions are organized and what the teaching materials will look like. Student and facilitator expectations are reviewed in this video as well as suggestions on how to run a physical examination session and an explanation of the importance of appropriate language usage and the need to review draping as part of the teaching session.

SLIDE SEVEN: 1. Teaching Philosophy for Physical Exam

- Reassure students about their initial skill levels, and providing ample time for physical exam practice in these sessions
- Create a safe teaching environment which encourages a growth mindset of curiosity and striving for improvement.
- Remind students that physical exam skills can be honed during study groups like year-end review or practice in pre-clinical shadowing or as part of LCE (also known as longitudinal clinical experience).

SLIDE EIGHT: 2. Session Organization

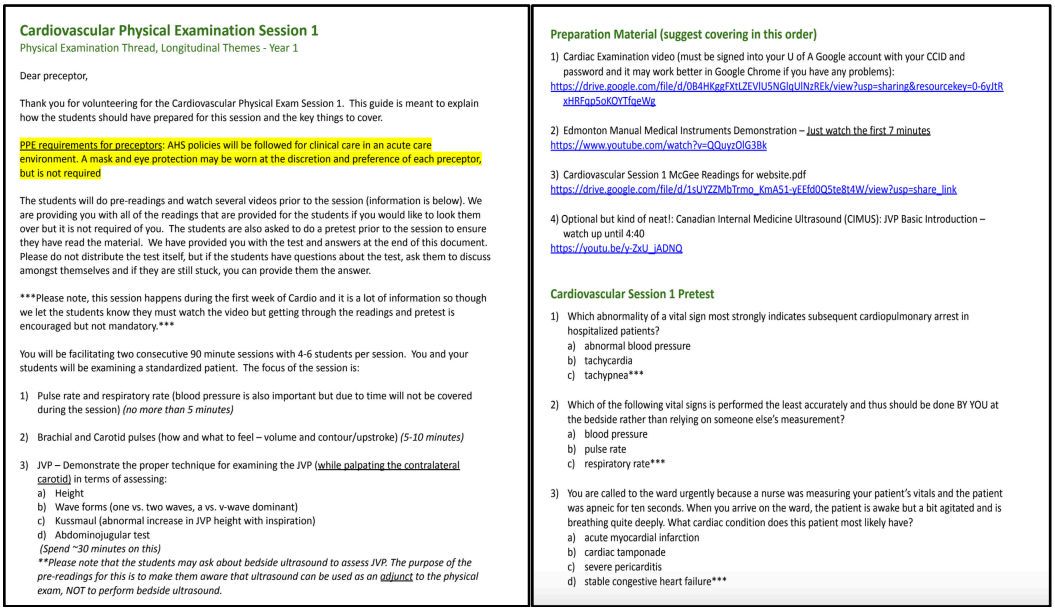
- Facilitators are sent a link to a google document several weeks to months in advance where they sign up for the various listed sessions. Be aware that the time commitment for each session is 3 to 4 hours in duration.
- The MD Program creates and approves the learning objectives for the physical exam curriculum and schedules the sessions one year in advance.

SLIDE NINE: 3. Teaching Materials

- Expect to receive an email from the MD Program with the facilitator guide, ONE WEEK in advance of your scheduled session. Physical exam sessions are usually in small group rooms on the 3rd floor of the Zeidler Ledcor Centre (called the Clinical Teaching Centre, or CTC for short). For the NAMP program, physical exam sessions will be held at the Health Education Centre (HEC) located in the Grande Prairie Regional Hospital.
- The facilitator guide will contain the following: learning objectives, pre-readings as well as hyperlinks to physical exam videos. Students are required to complete pre-tests to help focus their learning, and the pretest with the correct answers are supplied to you

strictly for your information and in case the students ask you about them. You are not required to complete the pre-test as part of the preparation.

- Some physical exam sessions are 60 minutes while others are 90 or 120 minutes. The duration of each session will determine the number of student groups you will facilitate over a 4 hour period ranging anywhere from 2 to 4 groups with 5 to 6 students in each group.
- It is suggested that you read through the facilitator notes and explore the helpful hyperlinks that may help you teach the specific learning objectives & discussion points. The overall anticipated preparation time for the average physical examination session is approximately one hour if you have not taught them before. You are NOT expected to create new material or handouts for each session. For consistency from group to group, it is important for facilitators to teach to objectives and materials from in the guide.



Cardiovascular Physical Examination Session 1

Physical Examination Thread, Longitudinal Themes - Year 1

Dear preceptor,

Thank you for volunteering for the Cardiovascular Physical Exam Session 1. This guide is meant to explain how the students should have prepared for this session and the key things to cover.

PPE requirements for preceptors: AHS policies will be followed for clinical care in an acute care environment. A mask and eye protection may be worn at the discretion and preference of each preceptor, but is not required

The students will do pre-readings and watch several videos prior to the session (information is below). We are providing you with all of the readings that are provided for the students if you would like to look them over but it is not required of you. The students are also asked to do a pretest prior to the session to ensure they have read the material. We have provided you with the test and answers at the end of this document. Please do not distribute the test itself, but if the students have questions about the test, ask them to discuss amongst themselves and if they are still stuck, you can provide them the answer.

Please note, this session happens during the first week of Cardio and it is a lot of information so though we let the students know they must watch the video but getting through the readings and pretest is encouraged but not mandatory.

You will be facilitating two consecutive 90 minute sessions with 4-6 students per session. You and your students will be examining a standardized patient. The focus of the session is:

1) Pulse rate and respiratory rate (blood pressure is also important but due to time will not be covered during the session) *(no more than 5 minutes)*

2) Brachial and Carotid pulses (how and what to feel – volume and contour/upstroke) *(5-10 minutes)*

3) JVP – Demonstrate the proper technique for examining the JVP (while palpating the contralateral carotid) in terms of assessing:
   a) Height
   b) Wave forms (one vs. two waves, a vs. v-wave dominant)
   c) Kussmaul (abnormal increase in JVP height with inspiration)
   d) Abdominojugular test
   (Spend ~30 minutes on this)
   ***Please note that the students may ask about bedside ultrasound to assess JVP. The purpose of the pre-readings for this is to make them aware that ultrasound can be used as an adjunct to the physical exam, NOT to perform bedside ultrasound.*

Preparation Material (suggest covering in this order)

1) Cardiac Examination video (must be signed into your U of A Google account with your CCID and password and it may work better in Google Chrome if you have any problems):
https://drive.google.com/file/d/0B4HKggFXtLZEVlU5NGlqUlNzREk/view?usp=sharing&resourcekey=0-6yJtRxHRFqp5oKOYTfqeWg

2) Edmonton Manual Medical Instruments Demonstration – Just watch the first 7 minutes
https://www.youtube.com/watch?v=QQuyzOlG3Bk

3) Cardiovascular Session 1 McGee Readings for website.pdf
https://drive.google.com/file/d/1sUYZZMbTrmo_KmA51-yEEfd0QS5te8t4W/view?usp=share_link

4) Optional but kind of neat!: Canadian Internal Medicine Ultrasound (CIMUS): JVP Basic Introduction – watch up until 4:40
https://youtu.be/y-ZxU_jADNQ

Cardiovascular Session 1 Pretest

1) Which abnormality of a vital sign most strongly indicates subsequent cardiopulmonary arrest in hospitalized patients?
   a) abnormal blood pressure
   b) tachycardia
   c) tachypnea***

2) Which of the following vital signs is performed the least accurately and thus should be done BY YOU at the bedside rather than relying on someone else's measurement?
   a) blood pressure
   b) pulse rate
   c) respiratory rate***

3) You are called to the ward urgently because a nurse was measuring your patient's vitals and the patient was apneic for ten seconds. When you arrive on the ward, the patient is awake but a bit agitated and is breathing quite deeply. What cardiac condition does this patient most likely have?
   a) acute myocardial infarction
   b) cardiac tamponade
   c) severe pericarditis
   d) stable congestive heart failure***

SLIDE TEN: 4. Attendance and expectations for student preparation.

- All physical exam sessions are mandatory for medical students. Their attendance is recorded by scanning in using the QR code at the entrance-way of Health Education Centre or Zeidler Ledcor Centre. Students who are unable to attend are still responsible for making up on missed materials and are encouraged to reach out to the physical exam coordinators if they have any concerns or issues.
- Students should arrive to the sessions having completed all the pre-readings, watched the videos and completed the pre-test.

SLIDE ELEVEN: 4. Student Dress Code

- The expected dress code is business casual, although students who volunteer to be examined may come dressed in appropriate clothing that permit an easier physical exam. For example, students agreeing to a knee exam may arrive in shorts.

- We discourage the use of strong scents or perfumes as this can be off-putting or cause upper respiratory issues to others in these confined spaces.
- Currently, there are no masking requirements, but this may be updated as the clinical situations warrant.
- Most physical examination tools such as weigh scales, tape measures, reflex hammers, otoscopes, ophthalmoscopes, draping supplies, hand sanitizer and sphygmomanometers are supplied or already in Zeidler Ledcor Centre or the Health Education Centre.

SLIDE TWELVE: 5. Logistics of running physical exam sessions

- All physical exam sessions are held in person in small group rooms. Students scan in the QR code for attendance and will make their way to their assigned room and facilitator.
- Please have a brief round of introductions and clarify learning expectations and duration of the session to ensure appropriate time management. Timing of the session will have been stipulated in the facilitator guide as well. There may be a standardized patient to introduce to the medical students.
- Students may volunteer to be examined, but there is no mandatory expectation for students to be examined if they are uncomfortable with this.
- Please provide equal and ample opportunity for all students to practice all the physical exam maneuvers and for you to provide feedback on their technique and hand placement as you see fit. Reassure the students that they are early in their training, and that these skills will come with practice especially when they are on the wards and in clinics.
- There are NO assessment forms to complete at these small group physical examination sessions.

SLIDE THIRTEEN: 6. Facilitator Expectations

- Come prepared by reviewing the facilitator guide beforehand.
- Have a structured approach of presentation of the pertinent physical exam content (such as starting with vital signs, general appearance, before proceeding with IPPA) as you see fit.
- Teach accurate performance of examination maneuvers, while modeling respectful patient interactions (which might include introductions of the patient, proper draping, and asking the standardized patient for permission to examine).
- Foster interpretation skills of potential examination findings. Demonstrate appropriate PPE use such as washing hands or use of hand sanitizer or masking if required.
- Maintain an inclusive and psychologically safe environment using neutral and inclusive language.
- Please address student professionalism concerns early, speaking to the student privately if you feel that is appropriate. Please do not hesitate to reach out to course coordinators if you have questions or concerns, as their role is to support you.

SLIDE FOURTEEN: 7. Important Considerations - Language

- We explain to students early that language used in the clinical setting is powerful, and thus, they have to be mindful of how they name and label things, as this is critical to preventing unintended harm.
- Be trauma-informed so you can create an atmosphere that is comfortable and welcoming to all, both patients and students alike
- Utilize gender-inclusive language.
- Avoid labeling specific findings using value statements like 'good' or 'perfect'.
- Avoid completing phrases such as 'for me' when giving instructions which might be triggering such as 'lie down for me'.
- Attempt to use utilize neutral terms for medical equipment such as physical exam table as opposed to 'bed', or palpate and examine instead of 'feel, touch and look at'.

SLIDE FIFTEEN: 7. Important Considerations - Draping

- It may be appropriate for facilitators to provide guidance on draping during such sessions aa the pulmonary, cardiac or GI examination. Students have identified draping as an area they would like to receive more instruction on. Draping is a fundamental component in providing respectful and professional care when examining patients.
- There should be drapes and examination gowns in each exam room for both practice sessions and OSCE's.

SLIDE SIXTEEN: Assessment and OSCE Preparation

SLIDE SEVENTEEN: Assessment

- There are 2 assessments in the physical exam curriculum.
- Year 1 students have a formative OSCE in April of their first year, consisting of 5 stations, where they must achieve a pass mark. However, failing this practice OSCE does not require formal remediation, nor does this student get held back from graduation into Year 2. Rather, it identifies students who are in need of academic support, and students may request for further academic assistance or remediation.
- Year 2 students have a summative OSCE in May, where they must *pass 9 out of 12 stations*. If they fail the first OSCE, they are allowed to write a remedial OSCE in mid-July. Failure of the second OSCE will require a holistic academic review by the Academic Standings committee, followed by a formal remediation plan before the students can move on to Year 3.

SLIDE EIGHTEEN: Facilitating Effective OSCE Preparation

- This information is being provided in case you sign up to be an OSCE examiner, or in instances where students at year-end review might ask the facilitator questions about the OSCE format including how to 'OSCE speak'.
- The Year 2 summative OSCE consists of 12 stations, each are 8 minutes in duration. Students are given one minute to read an information stem that should help the students focus on the pertinent physical examination, NO history taking is required.

- Students are taught to introduce themselves, state that they are going to examine the patient, and to prioritize patient comfort and dignity.
- Students are marked on their structured examination flow. For example, they should start off with general appearance, asking for vitals before examining the body part or system in question.
- Students are expected to verbalize what they are looking for during the physical exam and what they observe during the examination (OSCE speak).
- They should be able to demonstrate the physical examination maneuvers while verbalizing the observations and significance of these findings, balancing verbalization with action.

SLIDE NINETEEN: Thank you for teaching!

Once again, many thanks for facilitating the physical exam curriculum. Please reach out the course coordinators listed on the facilitator guide or your local NAMP coordinator depending on your location of work if you have any questions or concerns. Please consider logging into to Cally to check out your professor pages for other faculty development videos and orientations.