AAMC's Medical Education Senior Leaders

Checklists of Principles and Considerations for Medical Students in the Clinical Learning Environment During COVID-19

The following checklists are intended to be a living document identifying the more important considerations regarding medical students in the clinical learning environment during the COVID-19 pandemic. As circumstances change, the document will evolve. Please send edits or questions to Kate McOwen, AAMC Senior Director of Educational Affairs at kmcowen@aamc.org.

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Preparing Students for Clinical Re-entry

Introduction

The re-entry considerations that follow this introduction are intended to provide a framework for medical schools to evaluate their preparedness for the iterative process of student re-entry into the clinical learning environment. The considerations should be adapted for the individual needs of institutions, based on geographic variability in COVID-19 prevalence, adequacy of patient volumes and student supervision, supply of personal protective equipment (PPE), adequacy of financial and other resources, and standing agreements with affiliated clinical entities.

How to use/read this document

Along with the considerations provided by this document, in their development of clinical re-entry plans, medical schools should ensure alignment with current national and state and local public health considerations for COVID-19 screening, COVID-19 testing and protocols for management of exposure to known or suspected COVID-19 positive patients, state and other jurisdictional regulations pertaining to the clinical learning environment, and health system and institutional protocols governing learners in the clinical setting.

The document's sections encompass four principles for re-entry into the clinical learning environment, accompanies by key considerations: 1) capacity for clinical education of medical students; 2) availability of PPE; 3) screening and testing of students; and 4) evaluating the clinical learning environment.

Principles and Considerations for Student Clinical Re-entry	
Addressing Safety in the Clinical Learning Environment	
1. Capacity for Clinical Education of Medical Students	
PRINCIPLES	CONSIDERATIONS
Ensure that students can meet learning objectives and required clinical experiences	Review learning objectives and required clinical experiences to determine those that must be completed in a clinical setting and those that can be met through alternative means (e.g., online sessions, video, or telehealth). Consider using hybrid virtual and clinical learning experiences to address gaps.
Ensure adequacy and availability of supervision, including education of supervisors on expected levels of student responsibility in required clinical experiences	Train supervisors (e.g., faculty, residents, community preceptors and other staff) in the following areas: • Re-entry expectations/considerations for students • Policies on student care for patients with known or suspected COVID-19 *(See below)* • Defining rules of engagement (patient mix, PPE) • Exposure protocols (post-exposure, student symptoms/illness, reporting systems) • Faculty expectations • Clinic and institutional policies Outline systems utilized for tracking education provided/attestation (consider virtual tracking)
Determine if/when students are permitted to provide direct patient care to patients with COVID-19 or PUI patients	Determine if students will be permitted to provide care for patients with COVID-19 or patients under investigation upon re-entry. This decision should involve considerations for prevalence, supply of PPE, and relevant institutional considerations. Monitor evolving circumstances including the availability of PPE over time and the impact of additional waves of the COVID-19 pandemic. Ensure each clinical training site has an appropriate policy and system in place for screening and testing patients for COVID-19.
Determine alternative experiences for students who cannot directly care for patients known or suspected to have COVID-19	Consider the use of alternative teaching methods such as using "virtual rounds" with patients with COVID-19 to provide students with clinical exposure/context. Obtain appropriate committee approval to determine pathways to accommodate alternative learning experiences for students who cannot directly care for patients who are known or suspected to have COVID-19. Consider the use of alternative teaching methods such as using "virtual rounds" for patients with COVID-19 to provide students with clinical exposure/context.

PRINCIPLES	CONSIDERATIONS
Develop educational plans for students who are ill with COVID-19 or required to quarantine	Determine experiences that can be completed virtually or through alternative means if a student is ill and/or quarantined.
Consider a staggered re-introduction of students into the clinical environment	Consider the need for prioritized re-entry (i.e. which student classes will take priority, i.e. sub-interns versus clerks). Special considerations may need to be given to higher-risk rotations such as anesthesiology, otolaryngology, etc. Special permission may be needed for students to rotate in these areas and may be necessary for students planning to pursue residency in these areas. Consider what decisions need to be made for pre-clinical students participating in clinical areas including the availability of PPE, patient load, and adequate supervision. Priority should be given to clinical clerkships and sub-internships.
Determine protocols for working with standardized patients, as applicable	Consider the following elements with regards to use of Standardized Patients for teaching/assessing students: • Availability of PPE for both • Adequacy of Social distancing • Availability of Alternative experiences ex: telemedicine • Adequacy of Hygiene maintenance Adequate cleaning of learning spaces between uses
Implement a system to monitor student movement for personal reasons or for educational experiences such as away rotations (note: away rotations are not recommended except for specific reasons)	Consider student travel needs when re-entering the clinical learning environment • Define how far, where, and how a student may travel • Consider approaches to crossing borders or state lines • Define if an incoming student needs to be quarantined, and length of quarantine Review and consider local policies on public transportation
Ensure students are appropriately informed about COVID-19 itself and school policies and procedures related to COVID-19	Consider offering a re-entry "Preparation Course" such as: • Harvard Medical Student COVID-19 Curriculum • Tulane Clinical Re-entry in the COVID Era • Upstate Medical University Internal Medicine Residency Program Emergency Curriculum - COVID Inform students of protocols and algorithms for screening, testing, and exposure

PRINCIPLES	CONSIDERATIONS
Provide a mechanism for students to report any safety concerns	Consider online student safety reporting form available for contemporaneous reporting Affirm students are aware of established school and health care facility processes for students to report exposures. Consider questions on end of course evaluation surveys
Supporting Documents	• Supporting Student Safety Documents • U of SC SOM Greenville online safety reporting form
2. Adequacy of Personal Protective Equipment (PPE)	
PRINCIPLES	CONSIDERATIONS
Define responsibility for providing students with adequate and appropriate PPE	Responsibility for the provision for PPE should be clarified before student re-entry. Students should be aware if this will be provided by the clinical training site (e.g., hospital, clinic, or other facility) or by the school.
Ensure training in proper use of PPE	Students should receive training on PPE: • Donning and doffing PPE • Using PPE (what kind, when, where, how) • Institutional re-use protocols • Universal precautions • Infection control Although these may be local trainings, consider reliable resources available online.
Determine principles for replacing PPE	Establish schools and/or clinical sites policies and processes for the rotation cycle of PPE and institutional measures for conserving PPE (I.e., reuse and storage).
Supporting Documents	CDC, WHO, Harvard Medical Student COVID-19 Curriculum

3. Screening and Testing of Students	
PRINCIPLES	CONSIDERATIONS
Determine protocols for screening students for symptoms of COVID-19 or other illness prior to entry into the clinical environment	If possible, align protocols with workflows already implemented and used at clinical sites. Consider student awareness and expectation to: • Self-monitor for signs and symptoms daily • If symptomatic, isolate at home • If indicated, seek medical attention Inform appropriate administrative/occupational health individuals as needed
Determine policies and define protocols for testing students for COVID-19	Consider developing decision trees testing of students (PCR and/or serology), the implications of a positive test, the implications of a negative test, and the logistics for testing: • Availability/affordability/efficacy of testing all students and/or testing symptomatic students • Responsibility for administering and paying for testing (including, if applicable, coverage by student health insurance) • Responsibility for following up on all tests This decision may be guided by the sponsoring undergraduate institution or the health center/hospital/clinic where students are placed Ensure medical school/institutional policies are aligned with state and local ordinance and current public health guidance and HIPAA compliant.
Define protocols for reporting of student exposure to and/or illness from COVID-19	Define reporting mechanisms for student exposure and/or illness. Schools are encouraged to develop and/or define COVID reporting mechanisms. This should include: • Student health • Occupational health • Team • School • Hospital Define who will track students who develop symptoms, monitor test results, and ensure students follow the institutionally designated procedure(s) for return. Ensure protocols are HIPAA and FERPA compliant.
Develop self-isolation/ quarantine protocols for students	Consider state, local, and institutional policies for quarantine protocols as well as public health guidance
Supporting Documents	• CDC Testing Healthcare Personnel

4. Evaluating the Clinical Learning Environment	
PRINCIPLES	CONSIDERATIONS
Consider a tracking system to map capacity for clinical education and adequacy of PPE as outlined above	Review areas of the hospital and outpatient clinics where learners will be present. Consider a "heat map" (see supporting documents) based on areas where students currently rotate to determine adequacy of patient volume, supervision capacity, and number of COVID patients (if relevant) Reflect on learner capacity given case volume and social distancing
Determine adequacy of space in team rooms, break areas, call rooms, etc.	Recommended social distancing measures may alter or completely compromise availability of these spaces. Additional spaces may need to be developed or shared
Define institutional and regulatory partners whose approvals are necessary for returning students to the clinical learning environment	Institutional Partners to consider prior to returning students within the clinical environment may include: • Institutional Counsel/Legal Team • Local / State Government • Dean, Campus Leadership • Health system leadership • Community clinics • Community hospitals • Other community partners
Ensure students are informed of potential risk and allowed to make decisions about clinical re-entry	Provide information to students on potential risks in the clinical learning environment, as well as information on required clinical experiences or potential alternative experiences, so students can make informed decisions. Assess current policies around student disabilities to see if those policies apply or can be adapted to cover students needing to delay return to the clinical learning environment.
Consider impact on volume of students in subsequent classes	Large numbers of students who delay entry in the clinical learning environment may overburden resources in subsequent years
Supporting Documents	• U of SC Greenville Heat Map Resource • LCME Standard 12.8

Principles and Considerations for Reintroducing Students to the Clinical Learning Environment

Monitoring Learners from the Face-to-Face Clinical Learning Environment

Suggestions for Monitoring Student Clinical Re-entry	
1. Considerations for Clinical Education Monitoring	
PRINCIPLES	CONSIDERATIONS
Ensure that students can meet learning objectives and required clinical experiences	Patient volume and caseload for students during clerkship: Percentage of patients with COVID-19 vs. patients without COVID-19.
	Percentage of required clinical experiences completed using alternative methods to clinical encounters/procedures (LCME standard 8.6)
	Availability of inpatient and ambulatory sites for clerkships
	Availability of attending faculty and residents to supervise students (numbers of faculty/residents available and time available to teach)
	Consider distributed clinical sites and educational equivalence
	Restrictions enforced on student activity by clinical sites (OR? Clinics with limited PPE?)
	Amount / effectiveness of feedback to the student
	Effectiveness of curricular changes required based on physical distancing (eg, cancelled or reduced in-person skills sessions, Zoom lectures, etc)
	Monitor NBME Subject Exams and/or in-house assessment trends for assessing effectiveness of the curriculum adaptations
	Are there procedures students can't do currently that they would normally do (intubations, deliveries, etc), consider the use of simulation activities to augment/replace these experiences.

2. Considerations for Health/Safety/Wellness Monitoring	
PRINCIPLES	CONSIDERATIONS
Ensure training in proper use of PPE	Continued availability of sufficient PPE for students - According to institutional definitions of 'sufficient' for respective settings
Determine protocols for screening students for symptoms of COVID-19 or other illness prior to entry into the clinical environment	Adequacy of COVID-related safety protocols in clinical settings
Define responsibility for providing students with adequate and appropriate PPE	Responsibility for the provision for PPE should be clarified before student re-entry. Students should be aware if this will be provided by the clinical training site (e.g., hospital, clinic, or other facility) or by the school.
Ensure training in proper use of PPE	Students should receive training on PPE: • Donning and doffing PPE • Using PPE (what kind, when, where, how) • Institutional re-use protocols • Universal precautions • Infection control Although these may be local trainings, consider reliable resources available online.
Determine principles for replacing PPE	Schools or clinical sites need to decide on the rotation cycle for PPE and institutional measures for conserving PPE (I.e., reuse and storage).
Determine protocols for screening students for symptoms of COVID-19 or other illness prior to entry into the clinical environment	If possible, align protocols with workflows already implemented and used at clinical sites. Consider student awareness and expectation to: • Self-monitor for signs and symptoms daily • If symptomatic, isolate at home • If indicated, seek medical attention Inform appropriate administrative/occupational health individuals as needed

PRINCIPLES	CONSIDERATIONS
Determine protocols for testing students for COVID-19	Consider developing decision trees for when and why a student would be tested (PCR and/or serology), the implications of a positive test, the implications of a negative test, and the logistics for testing: • Availability/affordability/efficacy of testing all students and/or testing symptomatic students • Responsibility for administering and paying for testing (including, if applicable, coverage by student health insurance) • Responsibility for following up on all tests This decision may be guided by the sponsoring undergraduate institution or the health center/hospital/clinic where students are placed Ensure medical school/institutional policies are aligned with state and local ordinance and current public health guidance and also HIPAA compliant.
Define protocols for reporting of student exposure to and/or illness from COVID-19	Define reporting mechanisms for student exposure and/or illness. Schools are encouraged to develop and/or define COVID reporting mechanisms. This should include: • Student health • Occupational health • Team • School • Hospital Consider who will track students who develop symptoms, monitor test results, and ensure students follow the institutionally designated procedure(s) for return. Ensure protocols are HIPAA and FERPA compliant.
Develop self-isolation and quarantine protocols for students	Consider state, local, and institutional policies for quarantine protocols as well as public health guidance
Supporting Documents	• CDC Guidelines • Training • Policies
Institute emotional well-being standards and make mental health resources available	Student/Faculty/Resident/Staff emotional well-being
Determine protocols for quarantine and other travel considerations	Impact of student travel to clinical locations

3. Considerations for Local Context	
PRINCIPLES	CONSIDERATIONS
Determine the balance between institutional, local, state, and national guidelines in influencing your decision-making	# of new COVID-19 cases in city/state (second surge)
	Criteria to pull students back out • Restricted supply chain resources for PPE • Widespread community transmission? • No patients without COVID-19 or patients under investigation • Clinical partner decisions • Inadequate patient volumes
	Local policies regarding social distancing and re-opening phases
	University vs medical school vs hospital guideline conflicts
	Monitoring for other safety issues related to current events (e.g., students sent home by hospital for any variety of reasons)

Principles and Considerations for Reintroducing Students to the Clinical Learning Environment

Removing Learners from the Face-to-Face Clinical Learning Environment

Introduction

Having gone through the process of withdrawing students from clinical training our healthcare community evaluated the needs of patients and healthcare workers, followed by bringing learners back into the clinical environment, we are now faced with determining what procedures we need to put in place to continue medical education in the event of a resurgence of coronavirus spread. With the initial surge, we learned that safeguards can be put in place that provide acceptable protection for healthcare workers.

If there is a resurgence of the virus:

- Align with local and national regulations/laws
- Instead of removing all students from clinical training, consider the following:
    - Input and policies affiliated institutions
    - Local disease incidence, PPE availability, access to rapid testing, and availability of teaching faculty
    - Educational priorities
        - Students in their last year of training who need additional clinical exposure to meet educational program objectives.
        - Specific rotations
            - All outpatient training in physicians' offices, health departments, etc. if those facilities have appropriate PPE and patient volume, or available telehealth options.
        - Should learners be limited to certain settings?
            - Inpatient:
                - Internal Medicine
                - Family Medicine
                - Pediatrics
                - Psychiatry
                - Surgery and Gynecology (e.g. elective versus non-elective surgeries)
                - Obstetrics (e.g. routine deliveries)
            - Consider removing students from:
                - Emergency rooms
                - Intensive care units
                - COVID-19 -dedicated-units
                - Operating rooms
                - Delivery rooms
- The procedures put in place should aim at mitigating the students' risk as determined by the CDC and institutional partners at the time of the resurgence
    - May need to decrease number of students per team
    - Consider restricting students from patients with COVID-19

- Individual students can request removal from the patient care setting, although depending on their individual situation, they may have to take a LOA until they are willing to return.
- Restrict visiting students according to Coalition for Physician Accountability recommendations
- Restrict travel for home students to decrease need for quarantines

Other considerations

- Faculty Development needed to assist faculty in incorporating students into the care of patients who may be COVID-19 positive, but asymptomatic.
- Student training needed in the pathophysiology of COVID-19 and how to mitigate risk of exposure.
- Language for affiliation agreements to cover keeping patients in clinical care in agreed upon circumstances. Hospitals may also include language regarding census at which facility can no longer support student training, while focusing on its financial viability (this will be tricky)
- Develop talking points for communication with all constituents (students, faculty, institutional partners, staff, institutional legal counsel, state and local government, campus leadership, health system leadership, community faculty, and clinics, community hospitals, family members of students).

1. Educational Concerns	
PRINCIPLES	CONSIDERATIONS AND METRICS
Ensure that students can meet learning objectives and required clinical experiences	Available clinical volume has decreased at sites hosting students, regardless of cause, including: Hospital ward shut down due a cluster outbreak amongst nursing staff Curtailing of elective admissions because of shortages in PPE Curtailing of elective procedures due to mandated restrictions Alternate experience unavailable because of outbreak in simulation center Alternate experiences do not exist or cannot meet demand Administrative decision is suddenly made by host facility to exclude students School-designated clerkship requirements (typically linked to program objectives) cannot be met **Metrics to monitor student learning environment and patient volume:** Daily visits in ambulatory settings falls below X% of pre-COVID levels Hospital census falls below X% of pre-COVID levels Number of surgical and elective procedures falls below X% of pre-COVID levels Alternate experiences being used by more than X% of students in a clerkship
Ensure adequacy and availability of supervision, including education of supervisors on expected levels of student responsibility in required clinical experiences	Available supervision has decreased at sites hosting students, regardless of cause, including: Student's preceptor or supervisor no longer available and reassignment to another faculty not possible Faculty redeployed to other areas because of a surge in COVID-19 cases Outbreak amongst faculty and staff in an ambulatory clinic Increased demands in productivity result in faculty "electing" not to precept students **Metrics to monitor student supervision:** Requirements unable to be met by more than X% of students in a clerkship Requirements unable to be met by more than X% of students in sub-internships
Develop educational plans for students who are ill with COVID-19 or required to quarantine	Exclusion of students from clinical sites or from participating in care of patients with specific types of illness (i.e., influenza like illness in the winter) **Metrics:** Alternate experiences being used by more than X% of students in a clerkship

2. Health, Safety, and Wellness	
PRINCIPLES	CONSIDERATIONS AND METRICS
Provide a mechanism for students to report any safety concerns	Use online student safety reporting form available for contemporaneous reporting Consider questions on end of course evaluation surveys **Metrics:** Students report safety concerns X% of the time in a clinical learning experience
Determine appropriate PPE for students according to local requirements	Consider who will provide PPE, student training to use PPE, and supply conservation Consider which students require priority for placement in clinical learning experiences, focusing on students closer to graduation Provide appropriate faculty development to faculty with supervisory responsibility **Metrics:** Hospital and community spread of virus increases X% PPE supplies fall below X%
	CDC Optimize PPE Supply
Determine protocols for testing students for COVID-19	Availability/affordability/efficacy of testing all students and/or testing symptomatic students Responsibility for administering and paying for testing (including, if applicable, coverage by student health insurance) Responsibility for following up on all tests Maintaining HIPAA compliance This decision may be guided by the sponsoring undergraduate institution or the health center/hospital/clinic where students are placed **Metrics:** CDC and local requirements for testing are met with X% of students
	CDC information on Testing How to self-monitor
Determine space requirements	Decision is made to limit capacity of educational spaces at the University **Metrics:** Room space calculator suggests that there are more students in class than local guidelines suggest is appropriate
	Distancing Room Space & Capacity Calculator COVID-19 Guidance on Social Distancing at Work
Align with state and local guidance	Local Considerations - review all state, local, and institutional guidance Restrict visiting student rotations when appropriate Restrict home student away rotations when appropriate
	State by State COVID-19 Guidance

Principles and Considerations for Reintroducing Students to the Clinical Learning Environment

Communication

Introduction

This is not "what to do," but "some things to consider when preparing communications"

Principles and Considerations

Communicating About Reentry, Monitoring, and Removal of Learners in the Clinical Environment	
Principles	Considerations
Determine the scope of your communication plan	Who are we communicating with and what about? Students, state government, faculty, administration, affiliate organizations?
Determine who will give input on communication plan/ communications	Who will you want or need to get buy-in from: - Students - Faculty - Institution Leadership - State and Local Leadership - Staff - Institutional/Occupational Health & Safety - Have legal review available (don't unintentionally break laws, orders, etc)
Determine who will be responsible for making communication decisions	Clarify the person and their responsibilities and share this with the group
Determine who will be responsible for executing communications	Use a decision tree Include students whenever possible
Review modalities of communicating	Email Listservs Intrasites Official bodies such as: ● Students--include students in research programs or year out programs ● Student affairs ● Diversity and Inclusion

Principles	Considerations
Determine how regular to communicate	Use existing regular communications to deliver these communications if appropriate Create a protocol for "911" communications Collaborate with institutional communications team (necessary for collating on certain web platforms); another set of professional eyes to review what may be potentially difficult information for stakeholders Consider defined intervals for communication even if significant new information is not available. This is often seen as reassuring especially to students.
Design communications with other campuses in mind	Multiple campuses/regional campuses will cause complexity. Can all/pieces of your communications be adapted for their use? Consider links to school-controlled websites to maintain consistency of content and message.
Determine Archiving Plan	Where communications are stored/archived: ● Are all messages saved centrally so everyone is aware? ● Include communications/questions from the audience archived? ● Public or internal system (like LMS)? ● Consider archiving for the future (library)?

Communication Best Practices

Do not try to hide anything; Take responsibility
Acknowledging what is not known or decided is important. Share how uncertainty will be addressed and decisions will be made.
Institutions are very different and require very different approaches. Local organizational structures and politics are important in strategies.
Get your decisions out in a timely manner. They will not always be correct, but you can monitor and reassess as a leader.
It is vitally important to include student input. Important to be able to say "student colleagues have given inputs"
Mindfulness of being adaptive when local COVID situations change.
Make sure pathways to support (academic, mental health) are crystal clear
BE AVAILABLE
When possible, base decisions on well-established information, such as CDC guidelines for quarantine, published knowledge on viral biology, data on appropriateness of testing modalities, etc.
Have clear processes for "opt out" (ADA compliant, LOA options, etc)
Specifically, detail approaches to accessing occupational health and testing/quarantine cascades.