Engaging Students Remotely During Inpatient Rotations: Virtual Rotation Tip Sheet

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If concerns about exposure to COVID19, use of PPE and crowding in clinical environments limits the ability of students to be physically present during inpatient rotations, there are still ways in which they can be integrated in a meaningful way and have an authentic role in patient care. Here are some tips from early experiences with virtual rotations in pediatrics at UCSF:

**Technology**
- Zoom or other web-based video conferencing for both rounds and didactics
- Secure integrated communication platforms
- Remote access to EHR

**Team Members**
- In house stakeholders to address any challenges
- Bedside team to help connect remote learners to patients and families
- On service attending
- Off service attending/site director to engage learners throughout clerkship

**Content/Didactics**
- On and off service faculty give virtual lectures and case discussions
- Students teach the team and other learners by leading didactics via video conference
- Online learning portals
- Participation in unit-based QI efforts

**Clinical Duties**
- History taking and (limited) remote physical exam
- Note writing
- Order placement
- Presentation of patients on virtual rounds
- Communication with nursing and allied health staff
- Consultations with subspecialists

**Communication**
- Virtual orientation with goals and expectations
- Virtual tour of unit, rooms, IV and medication set up
- Solicit feedback from learners early and regularly
- Regular performance feedback with learners
Examples

Secure integrated communication on platforms include secure paging systems

Access to the EHR at home

Lessons Learned

Remote access to both the EHR and communication platforms prior to the start of the clerkship are important to remote learners' ability to contribute authentically to patient care

Having key stakeholders on the units was helpful in troubleshooting any "technical difficulties"

Access to paging systems and being able to discuss patients real time in group messaging was critical to learners feeling integrated
Team Members

In house stakeholders to address any challenges

Bedside team to help connect remote learners to patients and families

On service attending

Off service attending/site director to engage learners throughout clerkship

Examples

In house stakeholders could include nursing, physician team (residents and attendings) and IT

Lessons Learned

An attending liaison (e.g. the clerkship director or off service attending) is helpful in addressing learner's needs and advocating on their behalf

Resident engagement is critical to integrate remote learners effectively into the team
On and off service faculty give virtual lectures and case discussions.

Students teach team and remote learners by leading didactics via video conference.

Online learning portals.

Participation in unit based QI efforts.

**Examples**

Both off service faculty working from home and on service team (as workload allows) can participate in didactics.

Virtual interactive, patient-focused discussions to promote students' knowledge about disease processes of the patients they care for.

Check your national specialty organization for online curriculum and learning modules.

Virtual learners can participate in unit based quality improvement efforts (e.g. data collection and remote observations) providing additional opportunities for mentored problem solving.

**Lessons Learned**

Learning portals support self-directed learning.

Virtual didactics allow greater participation from remote learners and off service faculty.

With many attendings working from home there is an opportunity for an increased number of didactic sessions.

A central lecture schedule can help organize content delivery.

Students can serve as teachers by leading these discussions.
Clinical Duties

- History taking and limited/remote physical exam
- Note writing
- Order placement
- Communication with nursing and allied health staff
- Consultations with subspecialists
- Presentation of patients on virtual rounds

Examples

- From home, students can call consultations, bedside nurses, and other allied health staff
- Students are able to place orders remotely
- Using virtual conferencing, students can perform histories and limited physical exams
- Students can present patients during virtual rounds
- Students are able to provide phone updates to family members both at bedside and at home

Lessons Learned

- Students can promote skill development working in interdisciplinary and interprofessional environments but may need additional guidance prior to calling consultations and buy in from bedside nursing staff
- While nothing can replace an in person physical exam, students can hone observational skills and expand a different clinical exam skillset; still, every effort should be made for students to safely return to service (e.g. during nights or weekends when the teams are smaller or more work space is available)
- Families appreciate the extra interaction given visitor restrictions
- Students may need additional support in knowing when families are overwhelmed with information as some nuances are lost in the virtual experience
**Communication**

**Examples**

Prior to the clerkship start, goals and objectives should be discussed with the student and on service attending and should include how specifically those can be met during a virtual clerkship.

Within the first week of the virtual learning experience, solicit feedback from the learner about potential challenges and barriers unique to the virtual learning environment.

Feedback should include contributions to the care team.

**Lessons Learned**

Distance learners can easily feel disconnected from the team and regular meetings and feedback with the team is helpful to mitigate this.

Early feedback from learners can help navigate some of the unique challenges to distance learning allowing for early modifications to optimize the virtual experience.

Throughout the clerkship, learners may see in an increase in the amount of one on one time with attendings (both on and off service) and have more structured opportunities to discuss their performance and areas for further growth.