**Engaging Students Remotely During Inpatient Rotations: Virtual Rotation Tip Sheet**

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.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Team Members</th>
<th>Content/Didactics</th>
<th>Clinical Duties</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom or other web based video conferencing for both rounds and didactics</td>
<td>In house stakeholders to address any challenges</td>
<td>On and off service faculty give virtual lectures and case discussions</td>
<td>History taking and (limited) remote physical exam</td>
<td>Virtual orientation with goals and expectations</td>
</tr>
<tr>
<td>Secure integrated communication platforms</td>
<td>Bedside team to help connect remote learners to patients and families</td>
<td>Students teach the team and other learners by leading didactics via video conference</td>
<td>Note writing</td>
<td>Virtual tour of unit, rooms, IV and medication set up</td>
</tr>
<tr>
<td>Remote access to EHR</td>
<td>On service attending</td>
<td>Online learning portals</td>
<td>Order placement</td>
<td>Solicit feedback from learners early and regularly</td>
</tr>
<tr>
<td></td>
<td>Off service attending/site director to engage learners throughout clerkship</td>
<td>Participation in unit based QI efforts</td>
<td>Presentation of patients on virtual rounds</td>
<td>Regular performance feedback with learners</td>
</tr>
</tbody>
</table>
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.

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

Examples

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

Lessons Learned

An attending liaison i.e. 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
Content/Didactics

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 i.e. data collection and remote observations ad opportunities for mentored problem solving

Lessons Learned

Learning portals support self-directed learning

Virtual didactics allow a greater number of 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 the 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 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 i.e. 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

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

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 an increased 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